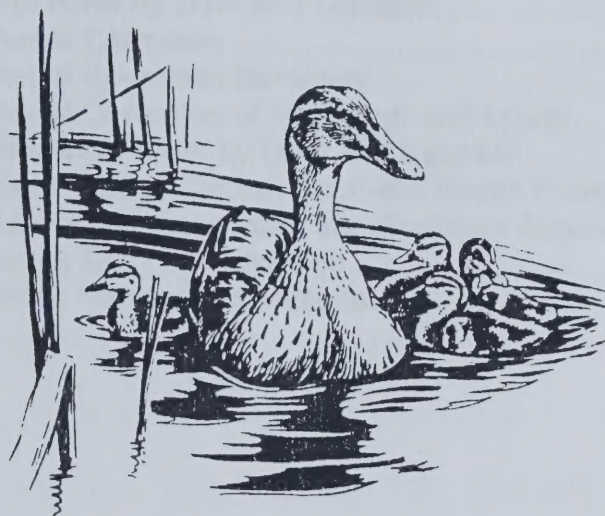


# ILLINOIS NATURAL HISTORY SURVEY

## CENTER FOR WILDLIFE ECOLOGY



### Illinois Waterfowl Surveys and Investigations

W-43-R-47

1 July 1998 through 30 June 1999

Annual Federal Aid Performance Report

by

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## Executive Summary

Aerial inventories of waterfowl were conducted weekly during spring migration from 9 February through 7 April 1999 in the Illinois River valley (Spring Valley to Grafton) and central Mississippi River valley (Grafton to Rock Island), and biweekly from 5 February to 30 March 1999 along the lower Mississippi River (Cairo to St. Louis) and on major reservoirs and power plant cooling lakes in central and southern Illinois.

During spring 1999 the peak number of total ducks in the Illinois Valley was 260,715 as compared with 129,700 in spring 1998 and a 1994-1998 five-year average of 149,725. The peak number of mallards was 149,875 in 1999 as compared with 83,595 in 1998 and an average of 102,234 for 1994-1998.

In the central Mississippi River valley during spring 1999, the peak number of lesser scaups was 143,000 as compared with 79,495 in spring 1998 and a 1994-1998 five-year average of 44,480. The 1999 spring peak number for canvasbacks in the central Mississippi River valley was 114,800, higher than the 1998 peak of 61,120 and higher than the 1994-1998 five year average of 37,644. Peak numbers in spring for mallards in 1999, 1998, and the 1994-1998 period were 133,505, 48,745, and an average of 49,104, respectively, in this region. The peak number of total ducks inventoried in the lower Mississippi River valley during the spring of 1999 was 40,015, higher than both the 1998 peak of 20,190 and the 1994-1998 five-year average of 7,790. For cooling lakes, the peak number for total ducks in 1999 was 24,980, lower than 33,445 for 1998 but higher than the 1994-1998 average of 20,991. The spring peaks of total ducks for the three reservoirs for 1999, 1998, and the 1994-1998 period were 161,955, 25,725, and an average of 40,250, respectively.

## Executive Summary

Aerial inventories of waterfowl were conducted weekly during spring migration from 9 February through 7 April 1999 in the Illinois River valley (Spring Valley to Grafton) and central Mississippi River valley (Grafton to Fort Island), and biweekly from 2 February to 30 March 1999 along the lower Mississippi River (Grafton to St. Louis) and on major reservoirs and powerplant cooling lakes in central and southern Illinois.

During spring 1999 the peak number of total ducks in the Illinois Valley was 260,716 as compared with 129,726 in spring 1998 and a 1994-1998 five-year average of 149,725. The peak number of mallards was 161,076 in 1999 as compared with 82,992 in 1998 and an average of 102,554 for 1994-1998.

In the central Mississippi River valley during spring 1999 the peak number of lesser scaups was 142,112 as compared with 44,409 in 1998 and a 1994-1998 five-year average of 44,409. The peak number of total ducks in the central Mississippi River valley during spring 1999 was 142,112 as compared with 44,409 in 1998 and a 1994-1998 five-year average of 44,409.

The 1994-1998 five-year average for total ducks in the Illinois Valley was 149,725, and the 1994-1998 period were 129,726, 161,076, and an average of 149,725, respectively in the region. The peak number of total ducks inventoried in the lower Mississippi River valley during the spring of 1999 was 10,015, higher than both the 1998 peak of 50,190 and the 1994-1998 five-year average of 7,797. For cooling lakes the peak number for total ducks in 1999 was 24,950, lower than 33,442 for 1998 but higher than the 1994-1998 average of 20,091. The spring peaks of total ducks for the three reservoirs for 1999, 1998 and the 1994-1998 period were 161,952, 25,725, and an average of 40,250, respectively.



Aerial inventories of waterfowl were conducted during fall migration on 2 and 8 September 1998, weekly from 7 October to 22 December 1998, and on 7 January 1999 (incomplete Mississippi River valley) in the Illinois River valley (Spring Valley to Grafton) and the central Mississippi River valley (Grafton to Rock Island). Biweekly censuses were conducted from 14 October to 23 December 1998, and on 12 January 1999 (incomplete) along the lower Mississippi River (Cairo to St. Louis) and on major reservoirs and power plant cooling lakes in central and southern Illinois.

The 1998 fall flight forecast for total ducks was 84 million, lower than 1997 estimate of 92 million birds. Habitat conditions in Illinois were considered fair and conditions in the Mississippi River valley were considered good to excellent. Due to high lake levels, production from moist-soil plants and waterfowl crops at the three major reservoirs in central and southern Illinois was rated as poor to fair.

In the Illinois River valley, the peak number of total ducks for 1998 occurred on 12 November and was 499,945, 8 percent lower than the 1997 peak of 545,790 but 22 percent higher than the five-year average of 408,153 for 1993-1997. The peak number for the total number of 417,810 ducks inventoried in the central Mississippi River valley during the fall of 1998 occurred on 7 December; this value was 43 percent higher than the 1997 value of 291,300 and was double the 1993-1997 five-year average of 208,690.

The peak number of mallards inventoried in the Illinois River valley during the fall of 1998 (327,625) was 19 percent lower than the 1997 fall peak (406,365) and 1 percent higher than the 1993-1997 average (322,823). In the central Mississippi River valley, the 1998 fall peak number for mallards in the central Mississippi River valley was 310,695, higher than the 1997 peak of 156,300 and more than the 1993-1997 average of 121,245.





The fall 1998 peak number for lesser scaups in the central Mississippi River region was 25,570, an 8 percent increase from the 1997 value of 23,700 and a 55 percent rise from the 1993-1997 five-year average of 16,460. During 1998, 1997, and the 1993-1997 period, the peak numbers of canvasbacks inventoried in the central Mississippi River valley were 36,900, 49,100, and an average of 28,915, respectively.

The number of use-days expended from 1 September - 15 December by the majority of waterfowl species inventoried during the 1998 fall migration in the Illinois River valley was slightly lower than 1997. In the Illinois Valley, use-days for 1998 and 1997, respectively, were 21,995,810 and 22,931,720 for total ducks, 14,883,508 and 16,771,935 for mallards, and 639,120 and 938,413 for Canada geese.

In the central Mississippi River valley, the number of use-days expended by the majority of species inventoried during the 1998 fall migration was higher than 1997. In the central Mississippi River valley, use-days for 1998 and 1997, respectively, were 12,904,705 and 11,296,563 for total ducks, 7,506,345 and 5,549,383 for mallards, 542,705 and 536,333 for lesser scaups, 561,198 and 1,329,713 for canvasbacks, and 404,863 and 472,235 for Canada geese.

In the lower Mississippi River valley, the peak number of total ducks inventoried during the fall of 1998 occurred on 8 December and was 16,995, more than the value of 9,920 in 1997 and more than the 1993-1997 five-year average of 8,194. At cooling lakes, the 1998 fall peak number of 40,880 for total ducks was recorded on 8 December and was higher than both the 1997 value of 20,905 and the 1993-1997 five-year average of 27,696. The 1998 fall peak for total ducks recorded on 13 November at the three reservoirs was 120,605, lower than the 1997 value of 166,770 but higher than 1993-1997 five-year average of 109,341.







SEGMENT PERFORMANCE REPORT - FY 1999  
Illinois Waterfowl Surveys and Investigations  
Federal Aid in Wildlife Restoration  
W-43-R-47

Study 104 AERIAL CENSUSES OF WATERFOWL

Job 104.1 Spring Waterfowl Censuses Along the Illinois River, Mississippi River, and Central-southern Reservoirs.

Aerial inventories of waterfowl were conducted weekly during spring migration from 9 February through 7 April 1999 in the Illinois River valley (Spring Valley to Grafton) and central Mississippi River valley (Grafton to Rock Island), and biweekly from 5 February to 30 March 1999 along the lower Mississippi River (Cairo to St. Louis) and on major reservoirs and power plant cooling lakes in central and southern Illinois (Figure 1). The results are presented in the attached report.

Job 104.2 Fall Waterfowl Censuses Along the Illinois River, Mississippi River, and Central-southern Reservoirs.

Aerial inventories of waterfowl were conducted during fall migration on 2 and 8 September 1998, weekly from 7 October to 22 December 1998, and on 7 January 1999 in the Illinois River valley (Spring Valley to Grafton) and the central Mississippi River valley (Grafton to Rock Island). Biweekly censuses were conducted from 14 October to 23 December 1998 along the lower Mississippi River (Cairo to St. Louis) and on major reservoirs and power plant cooling lakes in central and southern Illinois (Figure 1). The results are presented in the attached report.



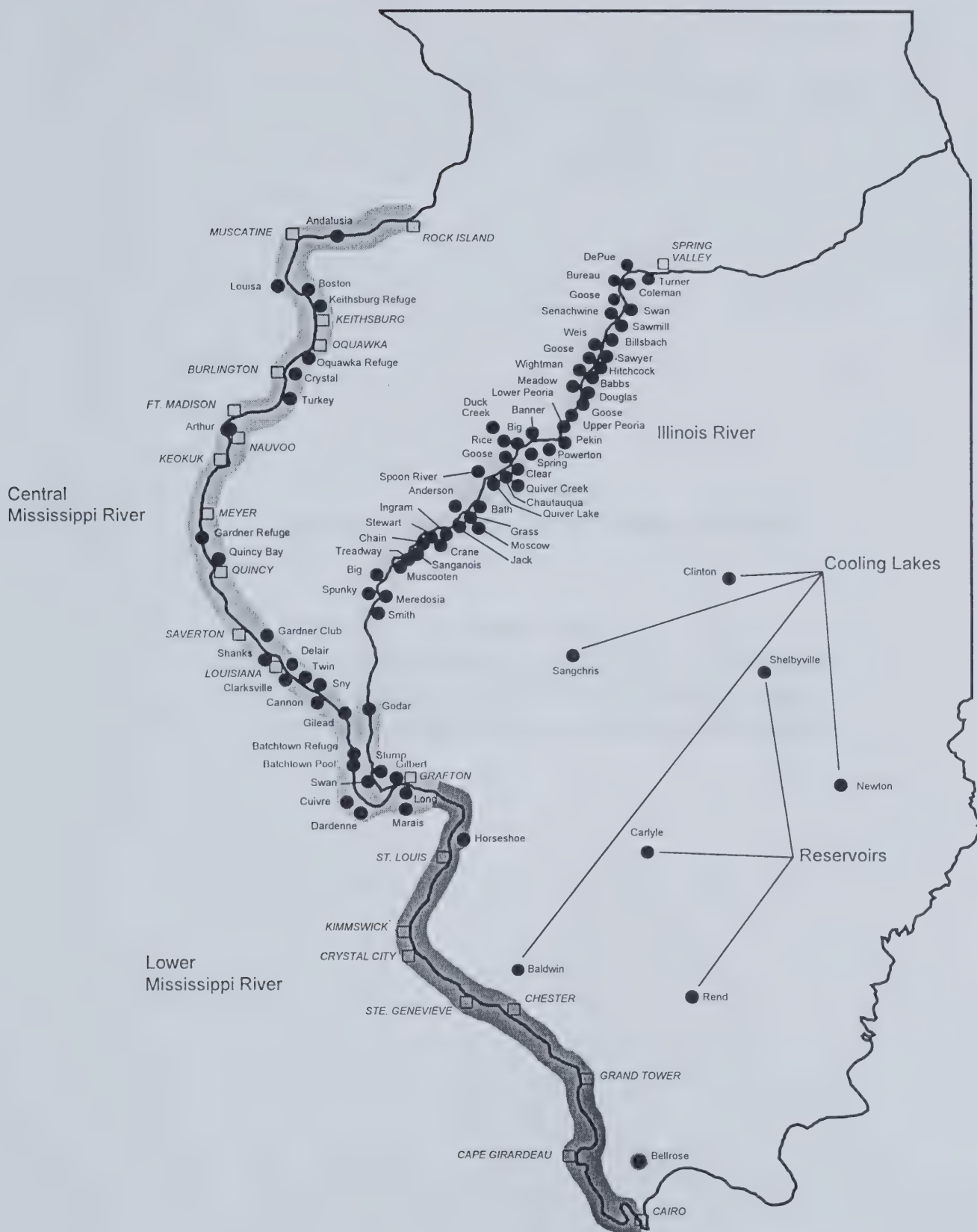


Figure 1. Specific locations within and the general areas of the central Mississippi River, lower Mississippi River, Illinois River, and the selected cooling lakes and reservoirs in central and southern Illinois aerially inventoried for waterfowl by the Illinois Natural History Survey.





**STUDY 104**  
AERIAL CENSUSES OF WATERFOWL

**JOB 104.1**  
SPRING WATERFOWL CENSUSES ALONG THE  
ILLINOIS RIVER, MISSISSIPPI RIVER, AND  
CENTRAL-SOUTHERN ILLINOIS RESERVOIRS





Aerial inventories were conducted periodically during the 1999 spring migration in the Illinois River valley from Spring Valley south to Grafton and in the central Mississippi River valley from Grafton north to Rock Island (page 6). Inventories were made on 9, 17, and 22 February; 1, 10, 15, 22, and 29 March; and 7 April. Biweekly inventories were also conducted in the lower Mississippi River valley from Cairo north to St. Louis and on power plant cooling lakes and major reservoirs in central and southern Illinois on 5 and 19 February; and 4, 19, and 30 March (page 42).

Peak (highest) population values in spring 1999 in the Illinois Valley were higher than those for 1998 for all waterfowl species inventoried except for blue-winged teals, gadwalls, and common goldeneyes. During spring 1999 the peak number of total ducks in the Illinois Valley was 260,715 as compared with 129,700 in spring 1998 and a 1994-1998 average of 149,725. The peak number of mallards was 149,875 in 1999 as compared with 83,595 in 1998 and an average of 102,234 for 1994-1998. The peak number of Canada geese in the Illinois Valley was 39,810 in 1999, an increase from 11,130 in 1998 and the 1994-1998 average of 30,760.

In the central Mississippi River valley, peak numbers of all species inventoried increased between 1998 and 1999 except for northern shovelers and ring-necked ducks. During spring 1999 the peak number of lesser scaups was 143,000 as compared with 79,495 in spring 1998 and a 1994-1998 five-year average of 44,480. The 1999 spring peak number for canvasbacks in the central Mississippi River valley was 114,800, higher than the 1998 peak of 61,120 and more than the 1994-1998 average of 37,644. Peak numbers in spring for mallards in 1999, 1998, and the 1994-1998 period were 133,505, 48,745, and an average of 49,104, respectively. The 1999 peak number of 22,440 Canada geese was higher than the 1998 peak (3,660) and also more than the 1994-1998 five-year average (8,619).

Aerial waterfowl inventories of selected cooling lakes and reservoirs in central and



southern Illinois and the floodplain of the lower Mississippi River from Cairo to St. Louis were conducted during the 1999 spring migration. Areas inventoried included Newton, Sangchris, Clinton, and Baldwin cooling lakes and Shelbyville, Carlyle and Rend Lake reservoirs. The peak number of total ducks inventoried in the lower Mississippi River valley during the spring of 1999 was 40,015, higher than both the 1998 peak of 20,190 and the 1994-1998 average of 7,790. For cooling lakes, the peak number for total ducks in 1999 was 24,980, lower than 33,445 for 1998 but more than the 1994-1998 average of 20,991. The spring peaks of total ducks for the three reservoirs for 1999, 1998, and the 1994-1998 period were 161,955, 25,725, and an average of 40,250, respectively. During 1999, 1998 and the 1994-1998 period, peak numbers of mallards in the lower Mississippi River valley were 20,565, 4,315, and an average of 3,405, respectively. For cooling lakes, peak numbers for mallards were 18,045 in 1999, 29,125 in 1998, and an average of 17,041 for 1994-1998. Spring peak numbers for mallards at the reservoirs were 79,215 in 1999, 21,300 in 1998, and an average of 29,099 for the 1994-1998 period.

Spring peak numbers of Canada geese on the three reservoirs and in the lower Mississippi River valley in 1999 increased from 1998 while a decrease occurred on the cooling lakes. On the reservoirs, peak numbers of Canada geese were 23,650 in 1999, 4,250 in 1998, and an average of 10,916 for 1994-1998. On the cooling lakes, spring peaks for 1999, 1998, and the 1994-1998 period were 3,290, 13,145, and an average of 8,792. In the lower Mississippi River valley, the 1999 peak for Canada geese was 8,200, much higher than both the 1998 peak of 100 and the 1994-1998 average of 674.





1999 SPRING WATERFOWL CENSUSES OF THE UPPER AND  
LOWER DIVISIONS OF THE ILLINOIS AND CENTRAL MISSISSIPPI  
RIVERS BY DATE AND LOCATION

(See Appendix A for common name abbreviations)



ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 2/09/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	900	0	0	0	0	0	0	0	0	0	250	0	0	100	0	1,300	2,550	25	0	0	0
Depue, Spring	1,325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	900	2,225	130	0	0	0
Coleman Lake	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	2,050	3,020	0	0	0
Bureau Ponds	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	1,000	0	0	0
Goose Lake	3,200	0	0	0	0	0	0	0	620	1,000	2,000	0	0	500	0	3,100	10,420	8,900	0	0	0
Senachwine Lake	1,450	0	0	0	0	50	0	0	0	0	0	0	0	0	0	1,700	3,200	1,700	0	0	0
Swan Lake	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	300	320	0	0	0
Sawmill Lake	1,400	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,420	40	0	0	0
Billsbach Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	270	20	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spartland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	0	0	0	0
Hitchcock Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	500	200	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	4,500	200	300	0	0	0	0	0	0	0	500	0	0	0	0	6,800	12,300	600	0	0	0
Goose Lake	5,200	0	0	0	0	0	0	0	200	0	400	0	0	0	0	2,500	8,300	1,700	0	0	0
Upper Peoria	1,300	0	0	0	0	0	300	0	0	0	0	0	0	0	0	75	1,675	100	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	21,925	220	300	0	0	50	300	0	820	1,000	3,150	0	0	600	0	17,420	45,785	17,755	0	0	0
TOTAL LOWER	115,290	3,215	7,810	0	6,850	3,450	1,820	0	4,750	2,770	3,500	0	470	2,620	820	37,680	191,045	22,055	16,575	0	40
TOTAL	137,215	3,435	8,110	0	6,850	3,500	2,120	0	5,570	3,770	6,650	0	470	3,220	820	55,100	236,830	39,810	16,575	0	40





ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 2/09/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	450	0	0	
Powerton Lake	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0	200	700	340	0	0	
Spring Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230	430	210	0	40	
Goose Lake	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	80	0	0	0	
Rice Lake	4,525	500	200	0	25	0	0	0	0	0	0	0	0	1,600	800	17,000	24,650	5,700	0	0	
Big Lake	2,400	20	0	0	500	0	0	0	450	0	0	0	0	0	0	3,200	6,570	0	0	0	
Banner Marsh	335	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	735	600	0	0	
Duck Creek	1,120	5	0	0	0	0	0	0	0	0	0	0	0	600	20	5,600	7,345	770	0	0	
Clear Lake	2,000	0	0	0	0	0	0	0	100	0	0	0	0	25	0	500	2,625	0	0	0	
Chautauqua	530	0	0	0	0	0	20	0	200	0	0	0	300	120	0	2,200	3,370	1,645	0	0	
Quiver Creek	2,600	0	0	0	200	50	0	0	0	0	0	0	0	0	0	0	2,850	1,350	0	0	
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Spoon Blms/Emiq.	14,300	200	1,500	0	700	100	200	0	1,100	200	2,200	0	100	0	0	350	20,950	0	0	0	
Bath Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	1,925	3,400	0	
Moscow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	420	420	0	0	0	
Jack Lake	350	0	0	0	0	0	0	0	0	50	0	0	0	0	0	1,400	1,800	70	0	0	
Grass Lake	920	0	100	0	0	0	0	0	0	0	0	0	50	0	0	1,200	2,270	0	25	0	
Anderson Lake	12,000	350	700	0	0	100	0	0	1,500	200	400	0	0	200	0	3,050	18,500	300	0	0	
Snicarte Slough	4,800	600	500	0	0	0	0	0	0	0	0	0	0	0	0	0	5,900	2,760	0	0	
Ingram Lake	3,700	50	0	0	0	0	0	0	0	0	0	0	20	0	0	0	3,770	200	0	0	
Chain Lake	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700	0	0	0	
Stewart Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	0	0	0	
Crane Lake	900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	1,050	420	750	0	
Cuba Island	5,200	0	2,000	0	0	0	0	0	0	0	0	0	0	25	0	1,300	8,525	2,700	0	0	
Sanganois	8,580	320	1,110	0	25	700	0	0	600	1,000	400	0	0	0	0	0	12,735	250	0	0	
Treadway Lake	380	20	0	0	0	0	0	0	0	0	0	0	0	0	0	15	415	0	0	0	
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Big Lake	22,600	700	500	0	1,200	300	1,000	0	0	20	0	0	0	0	0	30	26,350	1,400	4,500	0	
Meredosia Lake	21,200	250	0	0	3,200	2,200	100	0	600	1,300	0	0	0	50	0	300	29,200	600	3,300	0	
Smith Lake	115	0	0	0	0	0	0	0	200	0	0	0	0	0	0	0	315	0	0	0	
Spunky Bottoms	5,800	200	1,200	0	1,000	0	500	0	0	0	0	0	0	0	0	0	8,700	350	3,000	0	
Matanza Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	15	1,600	0	
TOTAL LOWER	115,290	3,215	7,810	0	6,850	3,450	1,820	0	4,750	2,770	3,500	0	470	2,620	820	37,680	191,045	22,055	16,575	0	40





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 2/09/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	100	4,200	4,700	0	0	0
Arthur Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Nauvoo-Ft. Mad.	100	0	0	0	0	0	0	0	17,100	0	26,900	0	800	1,000	5,300	10,700	61,900	2,400	0	0	0
Ft. Madison-Dallas	0	0	0	0	0	0	0	0	0	0	0	0	0	400	1,500	1,500	3,400	0	0	0	0
Dallas-Burlington	600	0	0	0	0	0	0	0	1,000	0	8,000	0	0	0	1,000	5,000	15,600	1,125	0	0	0
Turkey Slough	1,100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	1,200	120	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	250	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	275	2,600	0	0
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0
Oqua.-Keithsburg	3,000	0	0	0	0	0	0	0	1,200	0	100	0	0	250	1,150	4,600	10,300	1,200	0	0	0
Keithsburg Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,500	1,500	200	0	0	0
Louisa-Muscatine	0	0	0	0	0	0	0	0	0	0	0	0	0	500	300	50	850	0	0	0	0
Muscatine-Moline	50	0	20	0	0	0	0	0	0	0	0	0	0	825	100	2,400	3,395	520	0	0	0
Andalusia Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	5,100	0	20	0	0	0	0	0	19,300	0	35,025	0	800	3,375	9,550	29,950	103,120	8,195	0	0	0
TOTAL LOWER	29,210	10	1,570	0	1,120	0	250	715	1,200	4,620	100	0	50	10	0	460	39,315	14,245	21,300	25	0
TOTAL	34,310	10	1,590	0	1,120	0	250	715	20,500	4,620	35,125	0	850	3,385	9,550	30,410	142,435	22,440	21,300	25	0



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 2/09/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	1,700	0	0	0	0	0	0	0	800	3,000	100	0	50	0	0	0	5,650	100	0	0	0
Stump Lake	8,600	0	0	0	500	0	0	0	400	1,300	0	0	0	0	0	0	10,800	1,710	700	0	0
Swan Lake	1,140	10	400	0	0	0	0	500	0	220	0	0	0	10	0	320	2,600	510	0	25	0
Gilbert Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	320	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	300	0	0	0
Long Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dardenne	1,000	0	50	0	0	0	50	15	0	100	0	0	0	0	0	0	1,215	70	600	0	0
Cuivre	1,100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,100	1,550	0	0	0
Batchtown Pool	2,350	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	2,550	550	0	0	0
Batchtown Refuge	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	300	0	0	0
Gilead	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Cannon Refuge	6,100	0	700	0	620	0	0	200	0	0	0	0	0	0	0	0	7,620	4,400	20,000	0	0
Twin Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0
Clarksville Refuge	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	20	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	0	0	0
Delair Refuge	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700	2,800	0	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	2,635	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	2,655	140	0	0	0
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	1,090	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,090	15	0	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	40	0	0	0	0
Meyer-Keokuk	1,920	0	200	0	0	0	200	0	0	0	0	0	0	0	0	100	2,420	1,135	0	0	0
TOTAL LOWER	29,210	10	1,570	0	1,120	0	250	715	1,200	4,620	100	0	50	10	0	460	39,315	14,245	21,300	25	0





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 02/17/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	COOT
Turner Lake	2,500	0	0	0	0	0	0	0	0	0	0	0	0	600	0	700	3,800	25	0	0
Depue, Spring	4,700	200	300	0	0	0	200	0	0	0	25	0	0	0	0	400	5,825	1,050	0	0
Coleman Lake	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	150	80	0	0
Bureau Ponds	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0
Goose Lake	6,800	300	2,500	0	0	50	0	1,000	1,000	0	0	0	0	0	0	30	11,680	2,300	0	0
Senachwine Lake	500	0	0	0	0	0	0	0	0	0	0	0	0	300	0	900	1,700	200	0	0
Swan Lake	1,500	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0
Sawmill Lake	1,000	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,020	0	0	0
Billsbach Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	55	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	400	100	0	0
Sparland	375	25	0	0	0	0	0	0	0	0	0	0	0	0	0	100	500	0	0	0
Wightman Lake	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	20	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	315	10	0	0
Babbs Slough	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	40	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	1,900	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0
Goose Lake	2,200	0	320	0	0	0	0	200	0	0	1,000	0	0	0	0	50	3,770	120	0	0
Upper Peoria	550	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	550	100	0	0
Lower Peoria	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	0	0
TOTAL UPPER	25,000	545	3,620	0	0	150	200	1,200	1,000	0	1,025	0	0	900	0	2,675	36,315	4,045	0	0
TOTAL LOWER	124,875	2,540	27,535	0	2,420	3,720	2,200	900	9,030	8,035	9,685	0	0	700	0	6,050	197,690	10,945	19,120	1,420
TOTAL	149,875	3,085	31,155	0	2,420	3,870	2,400	2,100	10,030	8,035	10,710	0	0	1,600	0	8,725	234,005	14,990	19,120	1,420



ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 02/17/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	COOT
Pekin Lake	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	0	0	0
Spring Lake	100	0	0	0	0	0	0	0	0	0	20	0	0	0	0	140	260	345	0	500
Goose Lake	500	10	0	0	0	0	0	0	50	0	25	0	0	0	0	0	585	0	0	0
Rice Lake	2,010	20	15	0	0	0	0	0	20	10	100	0	0	0	0	2,920	5,095	700	0	0
Big Lake	1,245	0	0	0	0	0	0	0	25	500	50	0	0	0	0	0	1,820	0	0	0
Banner Marsh	630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	660	710	0	0
Duck Creek	20	0	0	0	0	0	0	0	0	0	0	0	0	400	0	1,060	1,480	30	0	300
Clear Lake	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	430	0	50	0
Chautauqua	150	0	0	0	0	0	0	0	40	80	20	0	0	0	0	0	290	825	0	0
Quiver Creek	6,500	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	6,600	205	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spoon Btms/Emiq	13,100	400	2,600	0	1,800	0	200	400	1,000	500	2,500	0	0	0	0	100	22,600	1,000	50	0
Bath Lake	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	0	0
Moscow Lake	10	0	5	0	0	0	0	0	0	0	0	0	0	0	0	10	25	0	0	0
Jack Lake	20	0	0	0	0	0	0	0	0	25	0	0	0	0	0	35	80	0	0	0
Grass Lake	6,100	200	800	0	20	0	0	0	0	100	0	0	0	300	0	230	7,750	500	0	0
Anderson Lake	7,880	300	900	0	0	200	50	0	1,475	500	400	0	0	0	0	1,000	12,705	350	20	600
Snicarte Slough	12,200	400	3,600	0	600	20	50	0	1,100	1,000	1,500	0	0	0	0	0	20,470	2,500	0	0
Ingram Lake	700	0	0	0	0	0	0	0	900	300	100	0	0	0	0	0	2,000	0	0	0
Chain Lake	100	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	125	0	0	0
Stewart Lake	20	0	0	0	0	0	0	0	400	100	20	0	0	0	0	15	555	0	0	0
Crane Lake	3,760	10	500	0	0	0	0	0	0	520	0	0	0	0	0	0	4,790	1,520	0	20
Cuba Island	600	0	10	0	0	0	0	0	20	0	0	0	0	0	0	200	830	230	0	0
Sanganois	24,100	500	8,220	0	0	1,500	500	0	2,000	1,000	700	0	0	0	0	0	38,520	900	0	0
Treadway Lake	11,800	100	5,100	0	0	0	0	0	500	0	1,500	0	0	0	0	0	19,000	200	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	4,400	100	1,500	0	0	0	300	0	0	0	0	0	0	0	0	0	6,300	400	0	0
Meredosia Lake	19,900	500	2,700	0	0	2,000	1,000	500	1,500	2,500	2,000	0	0	0	0	0	32,600	0	19,000	0
Smith Lake	700	0	250	0	0	0	0	0	0	0	250	0	0	0	0	0	1,200	20	0	0
Spunky Bottoms	4,000	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	4,500	500	0	0
Meredosia-Godar	4,100	0	800	0	0	0	0	0	0	900	500	0	0	0	0	0	6,300	0	0	0
TOTAL LOWER	124,875	2,540	27,535	0	2,420	3,720	2,200	900	9,030	8,035	9,685	0	0	700	0	6,050	197,690	10,945	19,120	1,420





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 02/17/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	200	0	0	0	0	0	140	220	560	0	0	0	0
Arthur Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nauvoo-Ft. Mad.	150	0	0	0	0	0	0	0	16,000	10,000	36,500	0	0	500	5,500	6,045	74,695	400	0	0	0
Ft. Madison-Dallas	25	0	0	0	0	0	0	0	0	0	300	0	0	20	30	60	435	0	0	0	0
Dallas-Burlington	1,850	0	0	0	0	0	0	0	0	0	16,200	0	0	0	400	200	18,650	50	0	0	0
Turkey Slough	4,700	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	4,900	300	0	0	0
Burling.-Oquawka	900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	910	600	0	0	0
Crystal Lake	1,900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,900	1,100	0	0	0
Oquawka Refuge	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	35	0	0	0	0
Oqua.-Keithsburg	3,800	10	20	0	0	0	0	0	0	0	1,100	0	0	0	0	40	4,970	230	0	0	0
Keithsburg Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	12,000	0	2,000	0	0	0	700	0	0	0	0	0	0	0	20	4,100	18,820	3,050	0	0	0
Louisa-Muscatine	2,025	0	0	0	0	0	200	0	0	0	300	0	0	0	0	0	2,525	20	0	0	0
Muscatine-Moline	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	390	50	0	0	0
Andalusia Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	27,725	10	2,020	0	0	0	1,100	0	16,200	10,000	54,400	0	0	520	6,090	10,725	128,790	5,820	0	0	0
TOTAL LOWER	36,405	10	7,925	0	105	500	20	525	2,025	1,020	0	0	430	25	70	465	49,530	6,165	0	60	440
TOTAL	64,130	20	9,945	0	105	500	1,120	525	18,225	11,020	54,400	0	430	545	6,160	11,190	178,320	11,985	0	60	440



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 02/17/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PELCOOT
Godar	3,300	0	400	0	0	0	0	0	200	500	0	0	0	25	0	100	4,525	180	0	200
Stump Lake	4,635	0	600	0	0	0	0	0	0	300	0	0	0	0	0	20	5,555	285	0	220
Swan Lake	870	0	0	0	25	0	20	0	0	0	0	0	430	0	70	45	1,460	570	0	20
Gilbert Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	330	0	0
Grafton-Alton	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	0	0	0
Marais Temps C.	1,500	0	250	0	0	0	0	0	0	0	0	0	0	0	0	0	1,750	10	0	0
Long Lake	1,600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,600	20	0	0
Dardenne	4,200	0	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	6,200	0	0	0
Cuivre	700	0	1,300	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0
Batchtown Pool	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225	5	0	40
Batchtown Refuge	620	0	0	0	0	0	0	0	25	20	0	0	0	0	0	0	665	40	0	0
Gilead	525	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	545	0	0	0
Cannon Refuge	6,460	10	2,100	0	10	0	0	400	0	0	0	0	0	0	0	0	8,985	2,000	0	0
Twin Ponds	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	55	0	0
Clarksville Refuge	600	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	800	1,200	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	400	0	500	0	0	0	0	100	1,800	0	0	0	0	0	0	0	2,800	120	0	0
La.-Saverton	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	0	0	0
Shanks Area	2,425	0	425	0	0	0	0	25	0	200	0	0	0	0	0	0	3,075	60	0	20
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0
Hannibal-Quincy	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0
Quincy-Meyer	2,100	0	50	0	50	300	0	0	0	0	0	0	0	0	0	0	2,500	810	0	0
Gardner Refuge	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	600	0	0	0
Meyer-Keokuk	5,200	0	100	0	0	200	0	0	0	0	0	0	0	0	0	200	5,700	480	0	0
TOTAL LOWER	36,405	10	7,925	0	105	500	20	525	2,025	1,020	0	0	430	25	70	465	49,530	6,165	0	440





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY Date: 02/22/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	6,000	500	500	0	0	0	0	0	0	0	0	0	0	0	0	0	7,000	400	0	0	0
Depue, Spring	4,950	20	200	0	0	0	0	0	0	0	0	0	0	0	0	400	5,570	300	0	0	0
Coleman Lake	1,100	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,300	1,100	0	0	0
Bureau Ponds	3,500	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,600	350	0	0	0
Goose Lake	5,200	400	1,225	0	0	0	50	0	0	0	0	0	0	400	0	1,150	8,425	3,500	0	0	0
Senawhine Lake	8,000	200	200	0	300	0	0	0	0	0	0	0	0	0	0	2,500	11,200	0	0	0	0
Swan Lake	1,900	100	0	0	0	0	0	0	0	0	0	0	0	300	0	200	2,500	80	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	40	0	0	0	0
Billsbach Lake	1,700	300	0	0	0	0	0	0	0	0	0	0	0	0	0	90	2,090	25	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	100	0	0	0
Sparland	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	270	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0
Hitchcock Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	40	50	0	0	0
Babbs Slough	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	25	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	2,800	30	0	0	0	0	0	0	0	0	0	0	0	0	0	10	2,840	60	0	0	0
Goose Lake	350	0	0	0	0	0	0	0	0	0	3,000	0	0	0	0	100	3,450	470	0	0	0
Upper Peoria	1,800	200	0	0	0	0	10	0	0	0	0	0	0	0	0	0	2,010	15	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0
TOTAL UPPER	37,520	2,050	2,125	0	300	0	60	0	0	0	3,000	0	0	700	0	4,700	50,455	6,585	0	0	0
TOTAL LOWER	104,535	1,780	30,555	0	5,370	1,350	890	0	2,900	13,650	14,300	0	440	3,290	100	20,630	199,820	10,295	3,500	0	3,120
TOTAL	142,055	3,830	32,680	0	5,670	1,350	950	0	2,900	13,650	17,300	0	440	3,990	100	25,330	250,275	16,880	3,500	0	3,120



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 02/22/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	20	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spring Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	75	240	0	0	300
Goose Lake	1,480	100	0	0	0	0	0	20	0	0	0	0	0	0	0	800	2,400	300	0	0	950
Rice Lake	3,100	10	200	0	0	0	0	0	0	0	0	0	0	1,500	100	4,500	9,410	130	0	0	800
Big Lake	1,900	20	80	0	0	0	0	0	0	0	0	0	0	0	0	1,600	3,600	10	0	0	500
Banner Marsh	1,700	10	25	0	20	0	0	0	0	0	0	0	0	0	0	25	1,810	1,850	0	0	0
Duck Creek	500	0	0	0	0	0	0	0	0	0	0	0	0	700	0	4,600	5,800	500	0	0	0
Clear Lake	7,000	300	400	0	0	400	0	0	0	0	0	0	10	0	0	2,300	10,410	0	0	0	70
Chautauqua	1,400	0	300	0	50	0	0	0	400	2,000	500	0	0	0	0	1,900	6,550	170	0	0	400
Quiver Creek	12,200	150	450	0	600	300	50	0	0	0	0	0	0	0	0	0	13,750	320	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spoon Btms/Emiq.	5,800	0	6,500	0	500	0	20	0	800	200	3,000	0	0	0	0	0	16,820	200	0	0	0
Bath Lake	50	0	0	0	0	0	0	0	0	0	0	0	5	0	0	10	65	25	0	0	0
Moscow Lake	20	0	0	0	0	0	0	0	0	50	0	0	0	0	0	20	90	40	0	0	0
Jack Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	1,020	0	1,800	3,020	600	0	0	0
Grass Lake	4,350	20	1,000	0	0	0	0	0	0	300	0	0	0	50	0	220	5,940	600	0	0	0
Anderson Lake	980	20	30	0	300	0	0	0	0	400	1,300	0	400	0	0	1,520	4,950	0	0	0	0
Snicarte Slough	12,000	300	4,000	0	0	0	0	0	0	4,000	2,000	0	0	0	0	0	22,300	1,300	0	0	0
Ingram Lake	900	0	0	0	0	0	0	0	500	0	3,000	0	0	0	0	10	4,410	0	0	0	0
Chain Lake	470	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	490	20	0	0	0
Stewart Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	300	0	0	0	0
Crane Lake	8,030	50	800	0	1,200	0	200	0	0	200	600	0	0	20	0	900	12,000	700	0	0	0
Cuba Island	2,600	100	0	0	0	0	100	0	0	0	0	0	0	0	0	25	2,825	650	0	0	0
Sangois	8,200	0	250	0	0	0	0	0	0	1,000	0	0	0	0	0	0	9,450	320	0	0	0
Treadway Lake	9,000	700	7,000	0	800	500	0	0	0	3,500	1,600	0	0	0	0	0	23,100	400	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	3,300	0	1,130	0	500	50	0	0	200	500	0	0	0	0	0	50	5,730	500	0	0	100
Meredosia Lake	10,400	0	6,600	0	400	100	500	0	1,000	200	2,300	0	0	0	0	0	21,500	600	0	0	0
Smith Lake	550	0	250	0	0	0	0	0	0	0	0	0	25	0	0	0	825	0	0	0	0
Spunky Bottoms	380	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0
Matanza Lake	2,500	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	3,000	300	0	0	0
Meredosia-Godar	5,300	0	1,000	0	1,000	0	0	0	0	1,300	0	0	0	0	0	0	8,600	500	3,500	0	0
TOTAL LOWER	104,535	1,780	30,555	0	5,370	1,350	890	0	2,900	13,650	14,300	0	440	3,290	100	20,630	199,820	10,295	3,500	0	3,120





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY

Date: 02/22/09

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	200	0	0	0	0	0	0	0	200	0	0	0	0
Arthur Refuge	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Nauvoo-Ft. Mad.	300	0	200	0	0	0	0	0	6,700	1,500	29,000	0	0	0	1,300	1,500	40,500	1,750	0	0	0
Ft. Madison-Dallas	3,350	0	0	0	0	800	200	0	0	0	0	0	0	0	0	1,200	5,550	1,020	0	0	0
Dallas-Burlington	10,900	25	1,500	0	400	0	500	250	2,000	5,000	6,000	0	0	200	0	2,600	29,375	1,700	0	0	0
Turkey Slough	2,500	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	3,000	500	0	0	0
Burling.-Oquawka	2,600	0	0	0	0	0	0	0	0	0	25	0	0	500	0	500	3,625	1,400	0	0	0
Crystal Lake	4,900	0	700	0	0	0	0	0	0	0	0	0	0	0	0	0	5,600	1,500	0	0	0
Oquawka Refuge	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0
Oqua.-Keithsburg	16,300	0	100	0	0	0	0	0	3,000	0	1,000	0	0	0	0	200	20,600	0	0	0	0
Keithsburg Refuge	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	1,800	0	0	0
New Boston	1,800	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	250	0	0	0
Louisa Refuge	7,500	0	100	0	0	0	100	0	0	0	0	0	0	0	0	2,200	9,900	2,300	0	0	0
Louisa-Muscatine	4,550	10	0	0	0	0	500	0	0	0	0	0	0	1,000	0	0	6,060	920	0	0	0
Muscatine-Moline	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	625	1,425	150	0	0	0
Andalusia Refuge	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	900	925	80	0	0	0
TOTAL UPPER	56,975	35	2,800	0	900	800	1,300	250	11,900	6,500	36,025	0	0	1,700	1,300	9,725	130,210	13,370	0	0	0
TOTAL LOWER	76,530	545	17,200	0	1,050	500	1,600	1,700	3,020	5,515	900	0	0	0	0	495	109,055	6,500	1,530	0	2,100
TOTAL	133,505	580	20,000	0	1,950	1,300	2,900	1,950	14,920	12,015	36,925	0	0	1,700	1,300	10,220	239,265	19,870	1,530	0	2,100



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 02/22/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	4,400	0	500	0	0	0	200	0	0	3,900	600	0	0	0	0	0	9,600	250	0	0	900
Stump Lake	8,750	0	1,300	0	0	0	0	0	200	1,070	0	0	0	0	0	200	11,520	210	30	0	0
Swan Lake	1,950	0	150	0	0	0	500	0	20	0	300	0	0	0	0	150	3,070	800	1,500	0	0
Gilbert Lake	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	50	0	0	0
Grafton-Alton	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0
Marais Temps C.	1,800	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	2,300	45	0	0	0
Long Lake	1,275	0	100	0	50	0	0	0	0	0	0	0	0	0	0	0	1,425	0	0	0	0
Dardenne	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0
Cuivre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Pool	4,900	200	5,000	0	0	0	0	0	0	0	0	0	0	0	0	0	10,100	0	0	0	0
Batchtown Refuge	500	0	500	0	0	0	0	0	0	500	0	0	0	0	0	0	1,500	0	0	0	0
Gilead	720	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	820	0	0	0	0
Cannon Refuge	3,325	100	530	0	0	200	100	0	0	25	0	0	0	0	0	0	4,280	800	0	0	800
Twin Ponds	300	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	350	200	0	0	0
Clarksville Refuge	2,000	0	400	0	0	0	0	0	0	0	0	0	0	0	0	0	2,400	700	0	0	0
Sny Slough	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	520	0	0	0
Delair Refuge	150	0	0	0	0	0	0	0	2,000	0	0	0	0	0	0	0	2,150	700	0	0	0
La.-Saverton	0	0	0	0	0	0	0	0	800	0	0	0	0	0	0	0	800	0	0	0	0
Shanks Area	16,200	0	4,300	0	0	0	0	500	0	0	0	0	0	0	0	0	21,000	800	0	0	400
Saverton-Hannibal	0	0	50	0	0	0	0	0	0	20	0	0	0	0	0	0	70	0	0	0	0
Gardner Club	280	0	20	0	0	0	0	0	0	0	0	0	0	0	0	115	415	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30	0	0	0	0
Quincy-Meyer	14,500	25	500	0	0	0	0	0	0	0	0	0	0	0	0	0	15,025	0	0	0	0
Gardner Refuge	1,420	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,440	0	0	0	0
Meyer-Keokuk	13,000	200	3,300	0	1,000	300	700	1,200	0	0	0	0	0	0	0	0	19,700	1,425	0	0	0
TOTAL LOWER	76,530	545	17,200	0	1,050	500	1,600	1,700	3,020	5,515	900	0	0	0	0	495	109,055	6,500	1,530	0	2,100





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY Date: 03/01/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	480	520	20	0	0
Depue, Spring	5,500	100	400	0	0	0	0	0	0	0	0	0	0	0	0	0	2,200	8,200	420	0	0
Coleman Lake	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	130	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	4,200	20	0	0	0	50	0	0	0	0	0	0	0	0	0	0	700	4,970	3,000	0	0
Senachwine Lake	4,000	300	200	0	0	0	0	0	0	0	0	0	0	0	200	0	900	5,600	0	0	0
Swan Lake	1,100	0	0	0	300	0	0	0	0	0	0	0	400	0	0	0	450	2,250	70	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	120	10	0	0
Billsbach Lake	1,200	0	250	0	0	0	0	0	0	0	0	0	0	0	0	0	300	1,750	100	0	0
Weis Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	20	0	0
Sparland	900	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	15	0	0
Wrightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	250	0	0
Hitchcock Slough	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	120	0	0	0
Babbs Slough	475	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	400	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	500	1,000	0	0	0
Goose Lake	1,100	25	600	0	0	0	0	0	0	0	500	0	0	0	0	0	300	2,525	800	0	0
Upper Peoria	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	30	0	0
Lower Peoria	0	0	0	0	0	0	0	0	1,100	0	0	0	0	0	0	0	0	1,100	0	10	0
TOTAL UPPER	22,295	470	1,550	0	300	50	0	0	1,200	0	500	0	400	20	200	5,970	32,955	4,865	10	0	0
TOTAL LOWER	90,365	490	19,935	0	9,790	3,345	3,200	2,300	15,575	18,950	12,815	0	1,620	510	545	15,365	194,805	7,985	5,600	95	2,245
TOTAL	112,660	960	21,485	0	10,090	3,395	3,200	2,300	16,775	18,950	13,315	0	2,020	530	745	21,335	227,760	12,850	5,610	95	2,245



ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY														Observer: Michelle Horath									
Date: 03/01/99																							
LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT		
Pekin Lake	425	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	425	25	0	0	0		
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0		
Spring Lake	250	0	0	0	0	0	0	0	0	0	0	0	0	20	20	100	390	230	0	0	920		
Goose Lake	1,600	10	0	0	0	20	0	0	0	0	40	0	0	0	0	20	1,690	50	0	0	200		
Rice Lake	3,400	25	50	0	0	0	0	0	25	0	0	0	0	300	0	6,650	10,450	110	0	0	200		
Big Lake	525	10	450	0	0	0	0	0	0	0	0	0	0	0	0	15	1,000	20	0	0	0		
Banner Marsh	455	0	10	0	20	0	0	0	30	0	0	0	0	0	0	30	545	960	0	0	250		
Duck Creek	20	0	0	0	0	0	0	0	0	0	0	0	0	70	0	1,200	1,290	850	0	0	0		
Clear Lake	4,500	0	1,000	0	0	0	0	0	50	200	0	0	0	0	10	250	6,010	120	0	0	0		
Chautauqua	2,300	0	100	0	0	0	0	0	20	2,050	25	0	500	0	155	150	5,300	480	0	0	50		
Quiver Creek	13,320	100	900	0	1,500	700	450	0	0	0	0	0	0	0	0	20	16,990	390	0	0	0		
Quiver Lake	1,600	0	0	0	0	0	0	0	0	500	0	0	0	0	0	0	2,100	0	0	0	0		
Spoon Btms/Emiq.	8,100	200	6,000	0	450	0	50	300	500	2,000	4,500	0	0	0	0	0	22,100	450	0	0	0		
Bath Lake	2,100	0	600	0	50	0	0	0	500	1,500	1,100	0	0	0	0	0	5,850	70	0	0	100		
Moscow Lake	500	0	0	0	0	0	0	0	0	700	0	0	0	20	0	50	1,270	0	0	0	0		
Jack Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,640	2,640	10	0	0	0		
Grass Lake	820	10	0	0	100	0	0	0	0	50	0	0	0	100	0	1,550	2,630	0	0	0	0		
Anderson Lake	3,150	50	300	0	0	0	0	0	3,500	1,100	1,200	0	0	0	150	1,200	10,650	50	0	25	25		
Snicarte Slough	800	0	200	0	600	0	100	0	4,000	2,700	700	0	300	0	0	300	9,700	25	0	0	0		
Ingram Lake	1,400	0	0	0	0	0	0	0	400	50	200	0	50	0	0	400	2,500	200	0	0	0		
Chain Lake	1,300	25	25	0	0	0	0	0	0	0	50	0	25	0	0	0	1,425	0	0	0	0		
Stewart Lake	1,500	0	0	0	20	0	0	0	0	0	0	0	20	0	0	500	2,040	0	0	0	0		
Crane Lake	7,300	0	1,200	0	0	0	0	0	0	900	0	0	0	0	0	200	9,600	1,500	900	25	0		
Cuba Island	2,400	0	1,000	0	0	0	0	0	0	0	0	0	0	0	0	40	3,440	1,130	0	0	0		
Sanganois	5,070	0	1,500	0	0	25	700	0	1,000	1,000	0	0	0	0	0	50	9,345	20	0	0	0		
Treadway Lake	4,530	50	1,600	0	500	0	400	0	3,800	3,200	4,500	0	0	0	200	0	18,780	110	0	0	0		
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Big Lake	7,100	0	400	0	3,500	1,100	1,500	500	0	0	0	0	525	0	10	0	14,635	0	300	0	500		
Meredosia Lake	9,800	0	4,100	0	3,000	800	0	1,200	1,000	700	0	0	0	0	0	0	20,600	750	4,400	0	0		
Smith Lake	1,300	0	0	0	0	200	0	0	700	300	500	0	200	0	0	0	3,200	400	0	0	0		
Spunky Bottoms	2,400	10	500	0	50	0	0	300	50	1,100	0	0	0	0	0	0	4,410	0	0	0	0		
Matanza Lake	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	20	0	45	0		
Bath-Beardstown	2,000	0	0	0	0	500	0	0	0	900	0	0	0	0	0	0	3,400	0	0	0	0		
TOTAL LOWER	90,365	490	19,935	0	9,790	3,345	3,200	2,300	15,575	18,950	12,815	0	1,620	510	545	15,365	194,805	7,985	5,600	95	2,245		





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 03/01/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	8,000	1,400	37,800	500	0	0	0	1,100	1,000	49,800	0	0	0
Arthur Refuge	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	125	55	0	0
Nauvoo-Ft. Mad.	1,500	0	0	0	0	0	0	0	31,000	4,000	53,000	1,000	3,000	800	10,800	6,100	111,200	700	20	10	0
Ft. Madison-Dallas	1,850	0	200	0	0	0	0	0	0	0	2,000	0	0	0	50	0	4,100	40	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	7,300	6,000	15,100	0	0	0	820	50	29,270	125	0	0	0
Turkey Slough	500	0	200	0	0	0	0	0	0	0	50	0	0	0	0	0	750	0	0	0	0
Burling.-Oquawka	6,100	0	2,000	0	0	0	250	0	0	0	0	0	0	0	300	0	8,650	2,200	0	0	0
Crystal Lake	2,000	0	600	0	0	50	0	0	0	800	0	0	0	0	0	0	3,450	2,100	0	45	0
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oqua.-Keithsburg	300	0	0	0	25	50	400	0	0	0	2,200	0	0	0	0	150	3,125	200	0	0	0
Keithsburg Refuge	900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	900	120	0	0	0
New Boston	900	0	0	0	0	0	0	0	400	0	0	0	0	0	0	0	1,300	0	0	0	0
Louisa Refuge	2,300	0	0	0	0	1,000	0	0	15,000	4,500	500	0	0	1,500	0	4,040	28,840	1,700	0	25	0
Louisa-Muscatine	600	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	800	50	0	0	0
Muscatine-Moline	400	0	0	0	0	0	0	0	3,000	0	0	0	0	200	325	400	4,325	300	0	0	0
Andalusia Refuge	450	0	50	0	0	0	0	0	0	0	0	0	0	0	0	20	520	0	0	0	0
TOTAL UPPER	17,825	0	3,050	0	25	1,100	650	0	64,700	16,700	110,750	1,500	3,000	2,600	13,495	11,760	247,155	7,590	20	80	0
TOTAL LOWER	35,305	100	39,505	0	2,975	2,500	1,020	2,700	4,540	4,500	4,050	0	650	0	0	515	98,360	5,690	1,600	510	170
TOTAL	53,130	100	42,555	0	3,000	3,600	1,670	2,700	69,240	21,200	114,800	1,500	3,650	2,600	13,495	12,275	345,515	13,280	1,620	590	170



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 03/10/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0
Depue, Spring	300	0	0	0	0	0	0	0	0	0	0	0	0	0	210	510	50	0	0	200
Coleman Lake	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	1,420	20	0	0	0	0	0	0	0	1,400	0	0	0	0	100	2,940	70	0	0	0
Senachwine Lake	3,300	200	400	0	0	0	200	0	0	0	0	0	0	0	200	4,300	275	0	0	0
Swan Lake	900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	900	100	0	0	25
Sawmill Lake	300	0	0	0	0	0	0	0	0	0	0	0	0	0	25	325	0	0	0	0
Billsbach Lake	30	0	0	0	0	0	0	0	0	200	0	0	0	0	10	240	0	0	0	0
Weis Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Spartland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Babbs Slough	230	10	10	0	0	0	0	0	0	0	0	0	0	0	0	250	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	1,800	200	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0	0
Goose Lake	3,400	400	200	0	0	0	0	0	600	0	0	0	0	0	900	5,500	50	0	0	0
Upper Peoria	50	0	0	0	0	0	0	0	0	200	0	0	0	0	0	250	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	12,080	830	610	0	0	0	200	0	600	1,800	0	0	0	0	1,445	17,565	585	0	0	225
TOTAL LOWER	126,925	3,795	11,920	0	2,050	300	340	235	16,890	20,175	4,575	1,320	0	430	5,755	194,710	5,140	1,425	0	2,950
TOTAL	139,005	4,625	12,530	0	2,050	300	540	235	17,490	21,975	4,575	1,320	0	430	7,200	212,275	5,725	1,425	0	3,175





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY

Date: 03/01/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	1,200	0	50	0	25	0	0	0	120	150	25	0	0	0	0	0	1,570	225	0	0	50
Stump Lake	3,200	0	1,100	0	1,600	0	0	900	1,800	3,150	500	0	20	0	0	0	12,270	50	0	0	20
Swan Lake	1,125	0	0	0	400	0	0	900	100	300	700	0	620	0	0	95	4,240	630	800	10	0
Gilbert Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	500	0	0	0
Grafton-Alton	150	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	160	0	0	0	0
Marais Temps C.	100	0	600	0	0	0	0	0	0	0	25	0	0	0	0	0	725	40	0	0	0
Long Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dardenne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cuivre	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Batchtown Pool	5,000	0	11,000	0	0	500	0	200	0	0	0	0	0	0	0	0	16,700	100	0	0	0
Batchtown Refuge	10,000	0	13,500	0	500	2,000	1,000	0	0	0	0	0	0	0	0	0	27,000	400	0	0	0
Gilead	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	500	0
Cannon Refuge	2,700	0	4,000	0	0	0	0	600	0	0	0	0	0	0	0	0	7,300	500	800	0	100
Twin Ponds	200	0	1,500	0	0	0	0	0	0	0	0	0	0	0	0	0	1,700	300	0	0	0
Clarksville Refuge	100	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	600	150	0	0	0
Sny Slough	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
Delair Refuge	3,000	0	1,100	0	0	0	0	0	2,500	500	2,500	0	0	0	0	0	9,600	1,700	0	0	0
La-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	3,000	100	2,500	0	400	0	0	0	20	400	0	0	0	0	0	0	6,420	25	0	0	0
Saverton-Hannibal	40	0	30	0	20	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0
Gardner Club	50	0	200	0	0	0	0	0	0	0	0	0	0	0	0	420	670	300	0	0	0
Hannibal-Quincy	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	20	0	0	0
Quincy-Meyer	2,000	0	1,500	0	0	0	0	100	0	0	0	0	0	0	0	0	3,600	100	0	0	0
Gardner Refuge	1,825	0	525	0	0	0	20	0	0	0	0	0	0	0	0	0	2,370	0	0	0	0
Meyer-Keokuk	1,350	0	1,400	0	0	0	0	0	0	0	300	0	0	0	0	0	3,050	650	0	0	0
TOTAL LOWER	35,305	100	39,505	0	2,975	2,500	1,020	2,700	4,540	4,500	4,050	0	650	0	0	515	98,360	5,690	1,600	510	170



LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	100	0	0	0	0	0	0	0	500	0	0	0	0	0	0	600	375	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Spring Lake	100	0	0	0	0	0	0	0	20	0	0	20	0	0	190	330	380	0	0	700
Goose Lake	4,200	10	400	0	0	0	0	0	0	0	0	0	0	50	250	4,910	50	0	0	50
Rice Lake	4,100	300	100	0	0	0	0	15	200	0	0	0	0	0	500	5,215	120	0	0	300
Big Lake	4,100	25	0	0	0	0	0	0	0	0	0	0	0	0	470	4,595	20	0	0	0
Banner Marsh	3,725	10	120	0	0	0	0	0	0	0	0	0	0	140	390	4,385	400	0	0	0
Duck Creek	100	0	0	0	0	0	0	0	0	0	0	0	0	10	550	660	400	0	0	0
Clear Lake	7,300	100	1,300	0	0	0	0	0	900	0	0	10	0	10	400	10,020	500	0	0	400
Chautauqua	12,650	800	1,500	0	0	0	50	0	825	250	150	470	0	0	380	17,075	810	0	0	200
Quiver Creek	18,800	360	0	0	0	0	200	0	0	0	0	0	0	0	0	19,360	550	0	0	0
Quiver Lake	2,300	100	250	0	0	0	0	0	100	700	0	0	0	0	0	3,450	0	0	0	0
Spoon Bltns/Emiq.	400	0	700	0	0	0	0	0	0	0	100	0	0	0	0	1,200	40	0	0	0
Bath Lake	4,000	0	0	0	0	0	0	0	0	1,200	0	0	0	0	200	5,400	50	0	0	0
Moscow Lake	1,950	50	50	0	0	0	0	0	2,000	4,300	500	0	0	0	50	8,900	0	0	0	0
Jack Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	1,200	0	0	0	0
Grass Lake	3,900	300	150	0	0	0	0	0	20	600	0	0	0	20	520	5,510	0	0	0	100
Anderson Lake	1,100	0	0	0	0	0	0	20	8,000	900	2,300	800	0	0	200	13,320	0	0	0	800
Snicarte Slough	3,300	200	2,000	0	0	0	0	0	100	4,200	0	20	0	0	0	9,820	0	0	0	0
Ingram Lake	6,600	400	500	0	0	0	0	100	0	400	0	0	0	0	95	8,095	60	0	0	0
Chain Lake	3,700	40	100	0	0	0	0	0	50	100	0	0	0	0	0	3,990	0	0	0	0
Stewart Lake	4,900	300	200	0	0	0	25	0	0	400	0	0	0	0	0	5,825	0	0	0	0
Crane Lake	12,000	0	600	0	0	0	0	0	25	600	0	0	0	0	150	13,375	0	800	0	0
Cuba Island	2,700	0	500	0	0	0	0	0	500	3,000	0	0	0	0	0	6,700	950	0	0	0
Sanganois	3,400	0	200	0	0	0	50	0	0	0	0	0	0	0	0	3,650	120	0	0	0
Treadway Lake	7,500	0	1,800	0	0	0	0	0	1,500	500	0	0	0	0	100	11,400	50	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	1,300	0	100	0	50	300	15	100	0	25	0	0	0	0	15	1,905	175	0	0	0
Meredosia Lake	8,800	400	650	0	1,500	0	0	0	50	1,200	500	0	0	200	125	13,425	50	625	0	400
Smith Lake	600	400	0	0	0	0	0	0	300	0	25	0	0	0	0	1,325	10	0	0	0
Matanza Lake	2,500	0	500	0	500	0	0	0	1,500	200	1,000	0	0	0	170	6,370	0	0	0	0
Spunky Bottoms	600	0	200	0	0	0	0	0	300	1,600	0	0	0	0	0	2,700	20	0	0	0
TOTAL LOWER	126,925	3,795	11,920	0	2,050	300	340	235	16,890	20,175	4,575	1,320	0	430	5,755	194,710	5,140	1,425	0	2,950





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 03/10/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	2,000	0	7,200	0	0	120	0	9,320	0	0	0	0
Arthur Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nauvoo-Ft. Mad.	3,200	0	0	0	0	0	0	0	3,500	4,000	51,200	0	800	4,300	3,000	70,000	300	0	0	0
Ft. Madison-Dallas	1,200	0	0	0	0	0	0	0	3,000	0	7,000	0	200	0	0	11,400	20	0	0	0
Dallas-Burlington	300	0	0	0	0	0	0	0	10,000	1,000	24,000	0	50	100	2,500	37,950	15	0	0	0
Turkey Slough	7,100	0	500	0	0	0	0	0	0	0	200	0	0	0	25	7,825	250	0	0	0
Burling.-Oquawka	10,700	0	700	0	0	0	0	0	100	0	3,400	0	0	0	0	14,900	300	0	0	0
Crystal Lake	5,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,500	700	0	0	0
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oqua.-Keithsburg	400	0	0	0	0	0	0	0	0	0	2,000	0	0	0	200	2,600	0	0	0	0
Keithsburg Refuge	25,000	0	4,000	0	0	3,000	2,000	0	0	0	500	0	0	0	0	34,500	1,500	0	0	0
New Boston	1,100	0	200	0	0	0	0	0	2,000	1,800	0	0	0	0	0	5,100	600	0	0	0
Louisa Refuge	9,300	0	0	0	0	0	3,000	0	100	2,200	0	0	0	0	1,200	15,800	0	0	0	0
Louisa-Muscatine	2,500	0	0	0	0	0	0	0	1,000	0	0	0	0	0	100	3,600	0	0	0	0
Muscatine-Moline	800	0	0	0	0	0	0	0	0	0	0	0	0	220	350	1,370	300	0	0	0
Andalusia Refuge	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	10	0	0	0
TOTAL UPPER	67,400	0	5,400	0	0	3,000	5,000	0	21,700	9,000	95,500	0	1,050	4,740	7,375	220,165	3,995	0	0	0
TOTAL LOWER	40,190	40	10,075	0	1,570	520	1,570	170	10,420	900	0	0	0	10	360	65,825	905	800	170	11,665
TOTAL	107,590	40	15,475	0	1,570	3,520	6,570	170	32,120	9,900	95,500	0	1,050	4,750	7,735	285,990	4,900	800	170	11,665



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 03/10/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT	
Godar	250	0	50	0	0	0	0	0	200	50	0	0	0	0	0	550	0	0	0	600	
Stump Lake	7,350	20	500	0	50	500	1,500	0	220	250	0	0	0	0	0	10,390	0	0	0	1,750	
Swan Lake	2,650	0	100	0	0	0	50	0	600	0	0	0	0	0	170	3,570	20	800	0	1,150	
Gilbert Lake	300	20	0	0	0	0	0	0	0	0	0	0	0	0	0	320	200	0	0	0	
Grafton-Alton	350	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350	0	0	0	0	
Marais Temps C.	500	0	100	0	0	0	0	0	0	0	0	0	0	0	0	600	40	0	30	120	
Long Lake	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	250	
Dardenne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cuivre	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	
Batchtown Pool	6,440	0	8,200	0	200	0	0	50	300	100	0	0	0	0	0	15,290	0	0	40	500	
Batchtown Refuge	2,100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	2,200	0	0	0	0	
Gilead	20	0	0	0	400	20	0	0	0	0	0	0	0	0	0	440	0	0	100	0	
Cannon Refuge	1,900	0	200	0	420	0	20	120	0	0	0	0	0	0	0	2,660	10	0	0	1,250	
Twin Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	
Clarksville Refuge	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	300	
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Delair Refuge	2,500	0	200	0	100	0	0	0	5,100	500	0	0	0	0	0	8,400	200	0	0	500	
La-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Shanks Area	7,300	0	600	0	0	0	0	0	0	0	0	0	0	0	0	7,900	50	0	0	4,200	
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gardner Club	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	300	0	0	0	
Hannibal-Quincy	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210	0	0	0	0	
Quincy-Meyer	6,600	0	0	0	400	0	0	0	0	0	0	0	0	0	0	7,000	0	0	0	1,025	
Gardner Refuge	120	0	0	0	0	0	0	0	0	0	0	0	0	10	190	320	0	0	0	20	
Meyer-Keokuk	0	0	0	0	0	0	0	0	4,000	0	0	0	0	0	0	4,000	65	0	0	0	
TOTAL LOWER	40,190	40	10,075	0	1,570	520	1,570	170	10,420	900	0	0	0	0	10	360	65,825	905	800	170	11,665





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY Date: 03/15/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	845	0	0	0	0	0	0	0	0	0	0	0	0	0	30	875	50	0	0	0
Depue, Spring	1,700	0	400	0	0	0	100	0	50	0	0	0	100	0	1,800	4,150	20	0	0	0
Coleman Lake	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	200	0	0	0
Bureau Ponds	10	0	0	0	0	0	0	0	0	100	0	0	0	0	0	110	0	0	0	0
Goose Lake	3,775	320	5,025	0	0	0	0	0	0	0	0	120	0	0	20	9,260	110	0	130	0
Senachwine Lake	2,600	300	2,900	0	0	0	0	0	0	0	0	0	0	0	1,700	7,500	0	0	0	0
Swan Lake	1,700	100	500	0	200	0	0	0	0	0	0	0	0	0	0	2,500	100	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	150	0	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0	0
Weis Lake	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
Sparland	0	0	0	0	0	0	0	0	2,100	0	0	0	0	0	50	2,150	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0
Babbs Slough	700	25	0	0	0	0	0	0	0	0	0	0	0	0	75	800	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	2,250	200	200	0	0	0	0	0	50	300	0	0	0	0	0	3,000	210	0	0	0
Goose Lake	5,200	500	0	0	0	0	500	0	0	0	0	0	0	0	500	6,700	210	0	0	0
Upper Peoria	280	20	0	0	0	0	0	0	1,200	0	0	0	0	0	20	1,520	30	0	0	0
Lower Peoria	40	10	0	0	0	0	0	0	500	0	0	0	0	0	0	550	0	0	0	0
TOTAL UPPER	19,540	1,475	9,025	0	200	0	600	0	3,900	400	0	120	100	0	4,365	39,725	930	0	130	0
TOTAL LOWER	80,790	545	14,445	100	6,230	525	1,170	5,190	16,300	10,755	6,350	3,900	20	60	7,940	154,320	6,880	4,055	275	4,025
TOTAL	100,330	2,020	23,470	100	6,430	525	1,770	5,190	20,200	11,155	6,350	4,020	120	60	12,305	194,045	7,810	4,055	405	4,025



ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 03/15/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	5,095	50	2,000	0	300	0	0	0	1,100	0	0	0	0	0	0	8,545	50	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0
Spring Lake	150	0	10	0	0	0	0	0	0	25	0	0	20	30	140	375	345	0	0	1,600
Goose Lake	1,200	5	150	0	10	0	0	20	0	0	0	20	0	0	55	1,460	20	0	0	0
Rice Lake	1,250	0	220	0	0	0	0	0	0	0	0	0	0	0	1,000	2,470	25	0	0	40
Big Lake	600	0	70	0	0	0	0	0	0	0	0	0	0	0	250	920	10	0	0	110
Banner Marsh	2,400	0	150	0	20	0	0	0	0	10	0	10	0	0	30	2,620	520	0	0	0
Duck Creek	350	0	10	0	0	0	0	0	0	0	0	0	0	10	650	1,020	330	0	0	525
Clear Lake	4,500	0	220	0	0	0	50	125	150	0	0	0	0	0	0	5,045	0	0	0	50
Chautauqua	14,650	340	500	0	200	0	100	250	1,500	600	400	900	0	0	0	19,440	1,070	0	60	100
Quiver Creek	7,300	0	550	0	0	0	300	0	100	25	0	0	0	0	0	8,275	250	0	0	0
Quiver Lake	1,900	0	50	0	0	0	0	0	850	200	0	0	0	0	0	3,000	0	0	0	0
Spoon Btms/Emiq.	6,600	50	4,700	0	900	0	600	300	350	600	2,000	0	0	0	0	16,100	850	0	0	0
Bath Lake	700	0	700	0	800	0	0	0	100	150	100	0	0	0	0	2,550	110	0	15	0
Moscow Lake	300	0	0	0	0	0	0	0	500	2,000	500	0	0	0	80	3,380	100	0	0	0
Jack Lake	400	0	0	0	0	0	0	0	0	0	0	0	0	0	1,700	2,100	20	0	0	0
Grass Lake	1,250	0	200	0	0	0	0	0	350	200	0	200	0	0	1,700	3,900	60	0	20	100
Anderson Lake	2,100	0	300	0	400	0	0	25	7,500	4,200	3,000	1,400	0	0	800	19,725	50	0	0	500
Snicarte Slough	2,800	0	500	0	0	0	100	1,000	100	200	0	0	0	0	0	4,700	45	0	0	0
Ingram Lake	2,000	0	400	0	0	0	0	100	0	0	0	0	0	0	400	2,900	0	0	0	0
Chain Lake	400	0	20	0	0	0	0	0	0	50	0	0	0	0	20	490	0	0	0	0
Stewart Lake	1,000	0	0	0	0	0	0	0	0	20	0	25	0	0	0	1,045	10	0	0	0
Crane Lake	4,300	100	400	0	0	0	0	20	100	300	0	210	0	0	200	5,630	250	4,000	0	0
Cuba Island	3,920	0	500	0	0	0	0	150	0	0	0	0	0	0	500	5,070	2,100	30	0	0
Sanganois	1,325	0	95	0	0	0	20	0	0	0	0	10	0	0	90	1,540	100	0	0	0
Treadway Lake	800	0	0	0	0	25	0	600	0	1,400	0	0	0	0	0	2,825	20	0	0	0
Muscooten Bay	500	0	0	0	0	0	0	500	0	25	100	0	0	0	0	1,125	10	0	0	0
Big Lake	5,200	0	1,300	0	1,600	0	0	1,100	200	50	0	0	0	0	200	9,650	50	0	0	0
Meredosia Lake	7,200	0	1,000	100	2,000	500	0	800	200	700	150	1,125	0	0	100	13,875	360	25	0	1,000
Smith Lake	300	0	0	0	0	0	0	200	3,000	0	100	0	0	0	0	3,600	25	0	160	0
Spunky Bottoms	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0	200	0	0	0	0
Matanza Lake	200	0	400	0	0	0	0	0	100	0	0	0	0	20	25	745	0	0	20	0
TOTAL LOWER	80,790	545	14,445	100	6,230	525	1,170	5,190	16,300	10,755	6,350	3,900	20	60	7,940	154,320	6,880	4,055	275	4,025





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 03/15/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	24,000	500	23,400	0	0	120	0	48,020	0	0	0	0
Arthur Refuge	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	25	0	0	0
Nauvoo-Ft. Mad.	300	0	300	0	50	0	0	0	23,000	1,500	3,400	0	200	1,450	2,000	32,200	0	0	0	0
Ft. Madison-Dallas	200	0	0	0	0	0	0	0	10,000	0	10,000	0	0	0	400	20,600	0	0	0	0
Dallas-Burlington	870	0	0	0	0	0	0	0	27,000	0	9,000	20	0	0	1,000	37,890	20	0	0	0
Turkey Slough	600	0	0	0	0	0	0	0	0	0	0	0	0	0	25	625	20	0	0	0
Burling.-Oquawka	400	0	100	0	0	0	0	0	2,000	0	3,000	0	0	50	0	5,550	200	0	0	0
Crystal Lake	2,000	0	600	0	0	0	0	0	0	0	0	0	0	0	0	2,600	700	0	0	0
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oqua.-Keithsburg	490	0	20	0	0	0	0	0	2,000	0	2,500	0	0	20	20	5,050	60	0	0	0
Keithsburg Refuge	18,000	50	4,000	0	0	0	1,000	0	0	0	0	0	0	0	0	23,050	950	0	0	0
New Boston	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Louisa Refuge	3,400	0	1,500	0	0	100	0	1,200	9,000	0	13,000	0	50	6,100	6,100	40,450	0	0	0	0
Louisa-Muscatine	1,450	0	220	0	0	0	0	100	2,000	0	0	30	0	0	0	3,800	60	0	0	0
Muscatine-Moline	2,700	0	300	0	0	0	0	0	1,040	0	3,000	0	20	20	20	7,100	0	0	0	0
Andalusia Refuge	20	0	0	0	0	0	0	0	0	0	0	0	0	400	400	820	0	0	0	0
TOTAL UPPER	30,660	50	7,040	0	50	100	1,000	1,300	100,040	2,000	67,300	50	270	8,160	9,965	227,985	2,035	0	0	0
TOTAL LOWER	17,680	20	3,900	20	2,025	525	30	465	15,510	700	3,020	1,690	0	0	90	45,675	1,240	120	70	6,410
TOTAL	48,340	70	10,940	20	2,075	625	1,030	1,765	115,550	2,700	70,320	1,740	270	8,160	10,055	273,660	3,275	120	70	6,410



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 03/15/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	350	0	0	20	200	0	0	0	10	200	0	0	0	0	0	780	10	0	0	1,400
Stump Lake	1,020	0	450	0	600	0	0	0	0	0	0	30	0	0	0	2,100	0	0	0	2,000
Swan Lake	430	0	300	0	25	0	0	100	0	0	20	1,660	0	0	50	2,585	20	120	0	1,010
Gilbert Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	700	0	0	0
Grafton-Alton	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	0	0	0	0
Marais Temps C.	650	0	100	0	0	0	0	0	0	0	0	0	0	0	0	750	5	0	0	300
Long Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dardenne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cuivre	0	0	0	0	1,000	0	0	0	0	0	0	0	0	0	0	1,000	0	0	0	0
Batchtown Pool	1,920	0	1,000	0	0	0	0	0	0	0	0	0	0	0	0	2,920	10	0	70	0
Batchtown Refuge	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250	0	0	0	0
Gilead	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0
Cannon Refuge	800	0	700	0	100	0	0	125	0	0	0	0	0	0	0	1,725	0	0	0	300
Twin Ponds	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	60	0	0	0
Clarksville Refuge	30	0	120	0	0	0	0	40	0	0	0	0	0	0	0	190	0	0	0	0
Sny Slough	30	0	10	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0
Delair Refuge	600	20	0	0	0	0	0	0	9,500	500	0	0	0	0	0	10,620	200	0	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	1,300	0	150	0	0	25	30	150	0	0	0	0	0	0	0	1,555	100	0	0	1,400
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	500	0	10	0	0	0	0	0	0	0	0	0	0	0	0	510	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	90	0	10	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
Gardner Refuge	830	0	0	0	0	0	0	0	0	0	0	0	0	0	40	870	0	0	0	0
Meyer-Keokuk	8,420	0	1,050	0	100	500	0	50	6,000	0	3,000	0	0	0	0	19,120	135	0	0	0
TOTAL LOWER	17,680	20	3,900	20	2,025	525	30	465	15,510	700	3,020	1,690	0	0	90	45,675	1,240	120	70	6,410





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 03/22/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	310	5	0	0	10	0	0	0	0	0	0	0	0	0	0	0	325	0	0	0	0
Depue, Spring	420	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	440	0	0	0	0
Coleman Lake	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	35	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	1,130	100	0	0	0	0	0	0	2,500	0	0	0	0	0	0	0	3,730	10	0	400	0
Senachwine Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Swan Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sparland	0	0	0	0	0	0	0	0	1,200	0	0	0	0	0	0	0	1,200	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0
Hitchcock Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	400	0	0	0	200	0	0	0	600	0	0	0	0	0	0	0	1,200	0	0	0	300
Goose Lake	50	0	0	0	50	0	0	10	0	0	0	0	0	0	0	0	110	0	0	0	0
Upper Peoria	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	50	0	0	0	100
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	2,330	105	20	0	260	0	0	10	4,300	50	0	0	0	0	0	20	7,095	45	0	400	400
TOTAL LOWER	20,030	45	2,445	20	9,850	250	115	2,660	5,995	2,670	410	625	3,170	0	80	605	48,970	945	1,250	2,145	15,390
TOTAL	22,360	150	2,465	20	10,110	250	115	2,670	10,295	2,720	410	625	3,170	0	80	625	56,065	990	1,250	2,545	15,790



ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY Date: 03/22/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	0	0	0	0	0	1,500	0	0	0	0	0	0	0	1,500	0	0	0	500
Powerlon Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spring Lake	0	0	0	0	0	0	0	10	20	0	0	0	125	0	10	0	165	120	0	0	3,050
Goose Lake	700	10	0	0	20	50	0	0	0	0	0	0	0	0	0	0	780	0	0	50	300
Rice Lake	1,600	0	20	0	0	0	25	0	120	170	0	0	500	0	0	60	2,495	10	0	0	1,600
Big Lake	70	0	0	0	1,000	0	0	20	0	20	0	0	0	0	0	0	1,110	0	0	300	0
Banner Marsh	815	0	10	0	25	0	0	10	25	0	0	0	0	0	50	0	935	185	0	0	625
Duck Creek	175	0	0	0	0	0	0	0	0	0	0	0	0	0	20	290	485	30	0	0	100
Clear Lake	1,500	0	200	0	310	0	0	0	50	0	0	0	0	0	0	5	2,065	10	0	0	120
Chautauqua	420	20	0	0	0	0	0	1,150	650	85	400	25	1,100	0	0	90	3,940	190	0	0	800
Quiver Creek	785	0	10	0	20	0	40	0	10	0	0	0	0	0	0	0	865	40	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0
Spoon Blms/Emiq.	350	0	510	20	1,525	100	50	65	150	1,100	0	0	10	0	0	0	3,880	50	0	0	25
Bath Lake	900	0	70	0	500	0	0	0	0	0	0	0	0	0	0	20	1,490	10	0	810	0
Moscow Lake	200	0	0	0	100	0	0	0	0	50	0	0	0	0	0	0	350	5	0	0	150
Jack Lake	600	15	0	0	0	0	0	0	20	10	0	0	60	0	0	0	705	0	0	70	200
Grass Lake	2,000	0	300	0	2,500	100	0	0	0	0	0	0	0	0	0	0	4,900	0	0	485	500
Anderson Lake	120	0	50	0	0	0	0	20	800	700	10	500	1,300	0	0	0	3,500	0	0	0	0
Snicarte Slough	0	0	0	0	0	0	0	100	50	10	0	0	0	0	0	0	160	0	0	0	0
Ingram Lake	200	0	0	0	0	0	0	0	0	0	0	0	20	0	0	100	320	0	0	200	50
Chain Lake	90	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	100	0	0	0	230
Stewart Lake	230	0	0	0	800	0	0	0	100	0	0	0	30	0	0	10	1,170	0	0	0	20
Crane Lake	1,300	0	25	0	50	0	0	25	200	0	0	0	0	0	0	20	1,620	20	0	150	0
Cuba Island	2,400	0	1,200	0	1,400	0	0	1,000	0	0	0	0	25	0	0	0	6,025	200	0	50	1,200
Sanganois	900	0	0	0	0	0	0	10	0	15	0	0	0	0	0	0	925	0	0	0	0
Treadway Lake	150	0	10	0	0	0	0	0	500	0	0	0	0	0	0	0	660	25	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	1,700	0	0	0	700	0	0	20	200	0	0	100	0	0	0	10	2,730	45	1,200	0	1,100
Meredosia Lake	700	0	0	0	600	0	0	0	500	0	0	0	0	0	0	0	1,800	0	50	0	800
Smith Lake	700	0	0	0	0	0	0	0	1,000	0	0	0	0	0	0	0	1,700	0	0	0	1,000
Matanza Lake	200	0	0	0	300	0	0	0	100	0	0	0	0	0	0	0	600	5	0	0	0
Meredosia-Godar	1,200	0	0	0	0	0	0	200	0	500	0	0	0	0	0	0	1,900	0	0	0	3,000
Spunky Bottoms	25	0	40	0	0	0	0	30	0	0	0	0	0	0	0	0	95	0	0	0	20
TOTAL LOWER	20,030	45	2,445	20	9,850	250	115	2,660	5,995	2,670	410	625	3,170	0	80	605	48,970	945	1,250	2,145	15,390





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 03/22/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	29,500	2,000	5,000	1,200	0	0	0	0	37,700	0	0	0	400
Arthur Refuge	300	0	0	0	0	0	0	150	0	0	0	0	0	0	0	0	450	40	0	0	30
Nauvoo-Ft. Mad.	0	0	1,000	0	1,000	0	300	500	41,000	4,000	22,000	2,000	1,300	25	20	10	73,155	10	300	0	4,000
Ft. Madison-Dallas	200	0	0	0	1,100	0	50	0	5,000	50	20,200	0	25	0	0	0	26,625	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	24,000	4,000	6,000	0	0	0	0	0	34,000	0	0	0	0
Turkey Slough	220	0	0	0	600	20	0	0	400	0	0	0	0	0	0	5	1,245	10	0	0	200
Burling.-Oquawka	625	0	0	0	250	0	0	0	2,100	0	1,500	0	200	0	110	0	4,785	0	0	60	0
Crystal Lake	1,700	0	500	0	0	0	200	200	0	0	0	0	0	0	0	0	2,600	50	0	0	500
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oqua.-Keithsburg	50	0	0	0	150	0	0	0	8,600	200	0	0	0	0	0	10	9,010	70	0	0	0
Keithsburg Refuge	800	0	0	0	0	0	100	100	120	0	600	0	0	0	0	0	1,720	50	0	0	1,100
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	50	0	0	0	0	0	0	0	5,300	0	0	0	0	0	0	0	5,350	5	0	400	800
Louisa-Muscatine	2,545	0	0	0	0	0	0	200	0	0	0	0	100	0	0	20	2,865	5	0	0	0
Muscatine-Moline	400	0	0	0	0	0	0	0	12,410	0	500	0	0	0	0	0	13,310	30	0	0	200
Andalusia Refuge	70	0	20	0	0	0	0	50	0	0	0	0	0	0	0	0	140	0	0	0	20
TOTAL UPPER	6,960	0	1,520	0	3,100	20	650	1,200	128,430	10,250	55,800	3,200	1,625	25	130	45	212,955	270	300	460	7,250
TOTAL LOWER	7,725	0	220	0	3,830	75	925	2,455	14,570	2,140	500	0	1,385	0	0	10	33,835	555	145	1,300	33,645
TOTAL	14,685	0	1,740	0	6,930	95	1,575	3,655	143,000	12,390	56,300	3,200	3,010	25	130	55	246,790	825	445	1,760	40,895



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 03/22/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	500	0	0	0	0	0	0	400	150	25	0	0	0	0	0	0	1,075	20	0	0	2,900
Stump Lake	710	0	0	0	800	0	0	235	0	0	0	0	15	0	0	10	1,770	0	0	0	6,900
Swan Lake	440	0	0	0	670	0	0	700	500	0	0	0	1,300	0	0	0	3,610	40	0	100	10,000
Gilbert Lake	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	100	20	0	950
Grafton-Alton	70	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	85	0	0	300	0
Marais Temps C.	400	0	0	0	0	0	0	130	0	0	0	0	0	0	0	0	530	0	0	225	900
Long Lake	150	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	195	0	0	0	20
Dardenne	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	20	0	0	0
Cuivre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Pool	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	5	0	220	0
Batchtown Refuge	30	0	0	0	0	0	0	20	400	0	0	0	0	0	0	0	450	0	0	0	0
Gilead	50	0	0	0	40	0	125	10	0	0	0	0	10	0	0	0	235	15	0	395	0
Cannon Refuge	135	0	200	0	100	0	0	530	125	0	0	0	60	0	0	0	1,150	10	0	0	4,350
Twin Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0
Clarksville Refuge	40	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	70	0	0	0	25
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	1,100	0	0	0	500	0	400	200	10,000	2,000	500	0	0	0	0	0	14,700	300	25	0	800
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	450	0	0	0	0	0	0	400	20	100	0	0	0	0	0	0	970	0	0	0	4,800
Saverton-Hannibal	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Gardner Club	2,450	0	0	0	20	75	0	0	0	0	0	0	0	0	0	0	2,545	0	0	40	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	50	0	20	0	800	0	0	20	400	0	0	0	0	0	0	0	1,290	0	100	0	2,000
Gardner Refuge	20	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	30	0	0	0	0
Meyer-Keokuk	1,090	0	0	0	700	0	0	0	3,100	0	0	0	0	0	0	0	4,890	20	0	20	0
TOTAL LOWER	7,725	0	220	0	3,830	75	925	2,455	14,570	2,140	500	0	1,365	0	0	10	33,835	555	145	1,300	33,645





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 03/29/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	CM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	20	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0
Depue, Spring	25	0	10	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0	200	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	300	0	0	0	0	0	0	50	0	0	0	0	0	0	0	350	20	0	210	0
Senachwine Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350	0
Swan Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sparland	1,300	0	0	0	200	0	0	0	0	0	0	0	0	0	0	1,500	0	0	0	0
Wrightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upper Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	1,645	0	40	0	200	0	0	50	0	0	0	0	0	0	0	1,935	20	0	805	0
TOTAL LOWER	990	20	50	200	1,775	70	120	5,495	280	110	55	1,100	0	40	10	10,315	345	130	2,560	15,990
TOTAL	2,635	20	90	200	1,975	70	120	5,545	280	110	55	1,100	0	40	10	12,250	365	130	3,365	15,990



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 03/29/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	CM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0
Spring Lake	20	0	0	0	0	60	15	300	0	0	0	250	0	0	0	645	40	0	0	8,500
Goose Lake	320	20	0	0	200	0	10	100	0	0	0	0	0	0	0	650	0	0	0	210
Rice Lake	40	0	0	0	0	10	0	0	0	0	0	0	0	0	0	50	5	0	0	540
Big Lake	30	0	0	0	40	0	0	180	0	0	0	0	0	0	0	250	0	0	0	50
Banner Marsh	70	0	0	0	120	0	0	10	0	0	0	0	0	0	10	210	115	0	0	275
Duck Creek	70	0	0	0	0	0	0	0	0	0	0	0	0	40	0	110	5	0	0	700
Clear Lake	100	0	0	0	700	0	0	75	50	0	0	0	0	0	0	925	0	0	0	350
Chautauqua	25	0	0	0	25	0	0	1,150	170	0	10	800	0	0	0	2,180	15	0	0	1,700
Quiver Creek	170	0	0	0	40	0	55	0	0	15	0	25	0	0	0	305	25	0	0	340
Quiver Lake	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	5	0	0	1,700
Spoon Btms/Emiq.	0	0	10	0	0	0	0	50	60	0	10	0	0	0	0	130	0	0	0	0
Bath Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
Moscow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jack Lake	10	0	0	0	25	0	0	0	0	0	0	0	0	0	0	35	0	30	0	60
Grass Lake	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20	0	0	0	30
Anderson Lake	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	0	0	150
Snicarte Slough	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	15	0	0	0	0
Ingram Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	0
Chain Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	20
Stewart Lake	0	0	0	0	0	0	0	0	0	20	0	25	0	0	0	45	0	20	0	30
Crane Lake	30	0	20	0	10	0	40	65	0	0	10	0	0	0	0	175	5	0	300	100
Cuba Island	40	0	0	0	300	0	0	2,700	0	0	0	0	0	0	0	3,040	40	0	100	500
Sanganois	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	200	0	0	610	0
Treadway Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,400	250
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	10	0	0	0	0	0	0	200	0	0	25	0	0	0	0	235	55	80	0	225
Meredosia Lake	25	0	0	0	300	0	0	250	0	40	0	0	0	0	0	615	0	0	0	20
Smith Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spunky Bottoms	10	0	20	0	15	0	0	400	0	15	0	0	0	0	0	460	5	0	0	200
TOTAL LOWER	990	20	50	200	1,775	70	120	5,495	280	110	55	1,100	0	40	10	10,315	345	130	2,560	15,990



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 03/29/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	5,800	100	500	0	0	0	0	6,400	0	0	0	0
Arthur Refuge	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	25	5	0	0	1,400
Nauvoo-Ft. Mad.	1,200	0	0	0	100	0	0	500	16,500	4,000	800	0	0	50	0	23,150	0	0	0	1,800
Ft. Madison-Dallas	0	0	0	0	0	0	0	0	600	0	0	0	0	20	0	620	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	200	9,025	0	0	0	0	0	0	9,225	10	0	370	0
Turkey Slough	0	0	0	0	0	0	0	0	4,000	500	100	0	0	0	0	4,600	0	0	0	0
Burling.-Oquawka	20	0	0	0	0	0	0	10	0	0	0	0	0	0	0	30	0	0	0	0
Crystal Lake	50	0	30	0	0	0	0	520	100	0	0	0	0	0	0	700	5	0	0	15
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oqua.-Keithsburg	0	0	0	0	0	0	0	100	50	0	0	0	0	0	0	150	0	0	0	0
Keithsburg Refuge	200	0	100	0	0	0	0	0	3,700	0	0	0	0	0	0	4,000	0	0	0	3,000
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	250	0	0	0	0	0	0	70	930	50	0	0	0	0	0	1,300	0	0	170	25
Louisa-Muscatine	1,800	0	0	0	0	100	0	0	0	0	0	0	0	0	0	1,900	0	0	0	0
Muscatine-Moline	200	0	100	0	0	0	0	0	700	0	0	0	0	0	0	1,000	0	0	0	0
Andalusia Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	3,720	0	230	0	100	100	0	1,425	41,405	4,650	1,400	0	0	70	0	53,100	20	0	540	6,240
TOTAL LOWER	40	0	20	0	290	0	0	1,165	4,200	0	20	40	0	0	0	5,775	45	50	2,090	3,220
TOTAL	3,760	0	250	0	390	100	0	2,590	45,605	4,650	1,420	40	0	70	0	58,875	65	50	2,630	9,460





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 03/29/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	5	0	0	70
Stump Lake	10	0	0	0	0	0	0	55	0	0	0	0	0	0	0	65	10	0	100	1,040
Swan Lake	0	0	0	0	20	0	0	300	0	0	0	30	0	0	0	350	10	0	475	130
Gilbert Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	440	10
Marais Temps C.	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	40	0	0	0	50
Long Lake	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
Dardenne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cuivre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Pool	15	0	0	0	0	0	0	5	0	0	0	0	0	0	0	20	0	0	0	0
Batchtown Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gilead	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20	0	0	0	0
Cannon Refuge	0	0	20	0	250	0	0	650	0	0	0	10	0	0	0	930	0	0	0	620
Twin Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0
Clarksville Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	10	0	0	0	0	0	0	25	600	0	20	0	0	0	0	655	0	0	275	800
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700	0
Shanks Area	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	40	5	0	0	500
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0
Quincy-Meyer	0	0	0	0	0	0	0	0	2,100	0	0	0	0	0	0	2,100	0	0	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meyer-Keokuk	0	0	0	0	20	0	0	0	1,500	0	0	0	0	0	0	1,520	0	50	0	0
TOTAL LOWER	40	0	20	0	290	0	0	1,165	4,200	0	20	40	0	0	0	5,775	45	50	2,090	3,220



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 04/07/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depue, Spring	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	5	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	5	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Goose Lake	0	0	0	0	0	0	0	210	0	0	0	0	0	0	0	0	0	0	210	0	0	260	0
Senachwine Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Swan Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210	0
Sparland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	20	10	0	0	250
Goose Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Upper Peoria	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	20	0	0	0	0	0	0	290	0	0	0	0	0	0	0	0	0	0	310	35	0	470	250
TOTAL LOWER	1,135	0	10	1,045	860	20	140	4,580	30	30	25	0	215	0	0	0	0	15	8,105	355	120	2,355	9,750
TOTAL	1,155	0	10	1,045	860	20	140	4,870	30	30	25	0	215	0	0	0	0	15	8,415	390	120	2,825	10,000





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

Date: 04/07/99

LOWER ILLINOIS RIVER VALLEY

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Powerforn Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spring Lake	25	0	0	0	0	0	0	25	0	0	0	0	20	0	0	0	0	0	70	30	0	0	4,345
Goose Lake	15	0	0	250	0	0	0	500	0	0	0	0	0	0	0	1,000	0	0	765	10	0	0	1,100
Rice Lake	5	0	0	10	5	0	0	10	0	0	0	0	0	0	0	0	0	0	30	0	0	0	420
Big Lake	0	0	0	0	0	0	0	400	0	0	0	0	0	0	0	0	0	0	400	5	0	0	750
Banner Marsh	25	0	0	30	0	0	0	25	0	0	0	0	0	0	0	0	0	0	80	80	0	0	200
Duck Creek	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15	0	0	10
Clear Lake	35	0	0	250	10	0	0	15	0	0	0	0	0	0	0	0	0	5	315	15	0	810	0
Chautauqua	70	0	0	0	0	0	0	1,620	30	0	25	0	150	0	0	0	0	10	1,905	45	0	280	840
Quiver Creek	35	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	45	30	0	0	0
Quiver Lake	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	5	0	0	0
Spoon Btms/Emiq.	15	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	45	5	0	0	0
Bath Lake	5	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	30	10	0	0	0
Moscow Lake	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Jack Lake	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Grass Lake	250	0	10	50	100	20	100	400	0	0	0	0	0	0	0	0	0	0	930	10	0	0	100
Anderson Lake	15	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	215	0	0	0	600
Snicarte Slough	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	10	0	5	0
Ingram Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	10
Chain Lake	5	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Stewart Lake	0	0	0	0	0	0	0	25	0	30	0	0	0	0	0	0	0	0	55	5	0	0	0
Crane Lake	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	10	0	0	0
Cuba Island	25	0	0	0	300	0	40	900	0	0	0	0	0	0	0	0	0	0	1,265	5	0	0	75
Sanganois	45	0	0	315	400	0	0	70	0	0	0	0	20	0	0	0	0	0	850	0	0	210	1,020
Treadway Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	325	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	425	0	0	50	0	0	0	165	0	0	0	0	0	0	0	0	0	0	640	35	120	20	250
Meredosia Lake	100	0	0	50	0	0	0	85	0	0	0	0	25	0	0	0	0	0	260	5	0	0	0
Smith Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Matanza Lake	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Meredosia-Godar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	705	0
Spunky Bottoms	15	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	65	10	0	0	30
TOTAL LOWER	1,135	0	10	1,045	860	20	140	4,580	30	30	25	0	215	0	0	0	0	15	8,105	355	120	2,355	9,750



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 04/07/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	600	0	0	0	0	0	0	0	0	600	0	0	0	0
Arthur Refuge	5	0	0	50	0	0	0	320	0	0	0	0	0	0	0	0	0	375	10	0	0	25
Nauvoo-Ft. Mad.	30	0	0	0	20	0	0	50	1,500	0	0	0	0	0	0	0	0	1,600	0	0	0	100
Ft. Madison-Dallas	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	1,300	0	200	0	0	0	0	0	0	1,500	0	0	0	0
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	0
Crystal Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oqua.-Keithsburg	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Keithsburg Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	25	0	0	0	0	0	0	0	500	0	0	0	0	0	0	0	0	525	0	0	150	0
Louisa-Muscatine	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	80	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Andalusia Refuge	75	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	85	0	0	0	50
TOTAL UPPER	365	0	0	50	20	0	0	380	3,900	0	200	0	0	0	0	0	0	4,915	10	0	360	175
TOTAL LOWER	60	0	0	20	70	0	0	1,290	25	0	10	0	0	0	0	0	0	1,475	25	125	1,375	1,450
TOTAL	425	0	0	70	90	0	0	1,670	3,925	0	210	0	0	0	0	0	0	6,390	35	125	1,735	1,625



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 04/07/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	40	5	0	390	50
Stump Lake	5	0	0	0	0	0	0	150	0	0	0	0	0	0	0	0	0	155	5	0	20	30
Swan Lake	15	0	0	0	0	0	0	170	0	0	0	0	0	0	0	0	0	185	0	0	60	20
Gilbert Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	10	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Long Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dardenne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cuivre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
Batchtown Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	0
Cannon Refuge	0	0	0	0	0	0	0	700	0	0	0	0	0	0	0	0	0	700	0	25	15	900
Twin Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Clarksville Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0
Shanks Area	10	0	0	0	0	0	0	230	0	0	0	0	0	0	0	0	0	240	0	0	55	450
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0
Quincy-Meyer	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	0
Meyer-Keokuk	20	0	0	0	0	50	0	0	25	0	10	0	0	0	0	0	0	105	0	100	200	0
TOTAL LOWER	60	0	0	20	70	0	0	1,290	25	0	10	0	0	0	0	0	0	1,475	25	125	1,375	1,450





1999 SPRING WATERFOWL CENSUSES OF CENTRAL-SOUTHERN  
ILLINOIS POWER PLANT COOLING LAKES AND RESERVOIRS,  
AND SEGMENTS OF THE SOUTHERN MISSISSIPPI RIVER BY DATE  
AND LOCATION

(See Appendix A for common name abbreviations)



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

## COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 02/05/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM/HM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	10	0	195	0	230	2,430	20	0	0
Newton Cooling Lake	30	0	0	0	0	0	0	0	60	0	0	0	0	0	0	110	0	200	160	0	0	0
Baldwin Cooling Lake	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	630	300	0	30
Sangchris Cooling Lake	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	70	0	0	0
COOLING LK. SUBTOTAL	225	0	0	0	0	0	0	0	60	0	0	0	0	10	0	305	0	600	3,290	320	0	30
Shelbyville Reservoir	25	0	0	0	0	0	0	0	0	0	0	0	0	20	0	40	0	85	1,385	0	0	0
Carlyle Reservoir	18,350	600	7,000	0	1,400	1,900	50	250	0	0	0	0	0	20	0	50	0	29,620	12,165	2,330	0	0
Rend Lake Reservoir	1,050	0	100	0	50	0	0	0	0	0	0	0	0	0	0	10	0	1,220	10,100	3,700	0	0
RESERVOIR SUBTOTAL	19,435	600	7,100	0	1,450	1,900	50	250	0	0	0	0	0	40	0	100	0	30,925	23,650	6,030	0	0
Belitrose Preserve Area	550	20	200	0	100	0	0	0	0	2,500	300	0	0	0	0	0	0	3,670	4,800	3,000	0	0
Cairo-Cape Girardeau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0
Cape Girardeau-Grand Tower	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	900	0	0
Grand Tower-Chester	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Chester-St.Genevieve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St.Genevieve-Crystal City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0
Crystal City-Kimmswick	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kimmswick-St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Horseshoe Lk. (St.Louis)	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	415	50	0	0	0
S. MISS. RIVER SUBTOTAL	995	20	200	0	100	0	0	0	0	2,500	300	0	0	0	0	15	0	4,130	4,850	4,320	0	0
TOTAL	20,655	620	7,300	0	1,550	1,900	50	250	60	2,500	300	0	0	50	0	420	0	35,655	31,790	10,670	0	30





ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 02/19/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BW	GWT	WIG	GAD	SH	SCAUP	RN	CNV	RDY	GLD	BH	CM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	1,800	0	10	0	0	25	320	0	0	0	0	0	0	10	230	0	2,395	770	0	0	20
Newton Cooling Lake	1,125	0	0	0	0	0	200	0	700	0	0	0	0	0	540	0	2,565	510	0	0	0
Baldwin Cooling Lake	500	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	700	855	350	0	325
Sangchris Cooling Lake	50	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	70	210	2,150	0	0
COOLING LK. SUBTOTAL	3,475	0	210	0	0	25	520	0	720	0	0	0	0	10	770	0	5,730	2,345	2,500	0	345
Shelbyville Reservoir	620	0	0	0	0	0	0	0	0	0	0	0	20	0	50	0	690	480	0	0	0
Carlyle Reservoir	49,800	4,300	14,800	0	9,550	8,500	1,500	0	1,800	6,200	900	0	0	0	20	200	97,570	900	0	0	2,000
Rend Lake Reservoir	12,500	150	100	0	1,600	700	0	0	0	1,000	0	0	0	0	10	0	16,060	1,950	3,000	0	1,025
RESERVOIR SUBTOTAL	62,920	4,450	14,900	0	11,150	9,200	1,500	0	1,800	7,200	900	0	20	0	80	200	114,320	3,330	3,000	0	3,025
Bellrose Preserve Area	3,500	0	300	0	2,400	0	0	0	1,000	1,200	0	0	0	0	0	0	8,400	6,200	0	0	400
Cairo-Cape Girardeau	7,525	0	3,850	0	1,500	300	0	1,500	0	0	0	0	0	0	0	0	14,675	1,550	2,600	0	0
Cape Girardeau-Grand Tower	4,230	0	1,000	0	1,500	100	0	0	0	0	0	0	0	0	0	0	6,830	0	0	0	0
Grand Tower-Chester	900	0	500	0	0	0	0	1,600	0	1,600	0	0	0	0	0	0	4,600	0	0	0	0
Chester-St.Genevieve	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
St.Genevieve-Crystal City	10	0	20	0	0	0	0	20	0	0	0	0	0	0	0	0	50	0	0	0	0
Crystal City-Kimmswick	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kimmswick-St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Horseshoe Lk. (St Louis)	4,200	0	600	0	0	0	0	400	0	40	0	0	0	0	20	0	5,260	450	0	0	20
S. MISS. RIVER SUBTOTAL	20,565	0	6,270	0	5,400	400	0	3,520	1,000	2,840	0	0	0	0	20	0	40,015	8,200	2,600	0	420
TOTAL	86,960	4,450	21,380	0	16,550	9,625	2,020	3,520	3,520	10,040	900	0	20	10	870	200	160,065	13,875	8,100	0	3,790



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

## COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 03/04/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	12,475	0	390	0	0	20	0	0	120	25	0	300	0	100	1,210	14,640	1,360	120	0	0
Newton Cooling Lake	4,400	110	600	0	0	0	0	0	1,500	600	200	0	0	0	1,100	8,510	360	0	0	20
Baldwin Cooling Lake	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	280	65	0	230
Sangchris Cooling Lake	1,100	0	430	0	220	0	0	10	0	0	0	0	0	0	0	1,760	150	0	0	0
COOLING LK. SUBTOTAL	18,045	110	1,420	0	220	20	0	10	1,620	625	200	300	0	100	2,310	24,980	2,150	185	0	250
Shelbyville Reservoir	1,865	0	30	0	20	25	0	0	0	0	0	10	50	0	535	2,535	105	80	0	0
Carlyle Reservoir	70,500	1,500	31,000	70	26,500	5,200	7,000	1,700	3,500	1,500	0	20	0	0	60	148,550	510	160	80	0
Rend Lake Reservoir	6,850	0	800	0	800	0	0	220	350	1,800	0	0	0	0	50	10,870	40	1,700	0	100
RESERVOIR SUBTOTAL	79,215	1,500	31,830	70	27,320	5,225	7,000	1,920	3,850	3,300	0	30	50	0	645	161,955	655	1,940	80	100
Bellrose Preserve Area	1,900	0	800	25	2,100	0	0	1,300	1,300	900	25	0	0	0	0	8,350	100	2,500	0	2,000
Cairo-Cape Girardeau	0	0	400	0	0	0	0	0	0	0	0	0	0	0	0	400	0	550	0	0
Cape Girardeau-Grand Tower	115	0	0	0	25	0	0	0	0	0	0	0	0	0	0	140	0	0	0	0
Grand Tower-Chester	600	0	0	0	1,500	0	0	25	250	50	0	50	0	0	0	2,475	0	20	0	0
Chester-St. Genevieve	80	0	20	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
St. Genevieve-Crystal City	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Crystal City-Kimmswick	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	15	0	0	0
Kimmswick-St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Horseshoe Lk. (St. Louis)	1,025	0	120	0	400	0	0	0	50	0	0	0	0	0	0	1,595	10	0	0	330
S. MISS. RIVER SUBTOTAL	3,750	0	1,340	25	4,025	0	0	1,325	1,600	950	25	50	0	0	0	13,090	125	3,070	0	2,330
TOTAL	101,010	1,610	34,590	95	31,565	5,245	7,000	3,255	7,070	4,875	225	380	50	100	2,955	200,025	2,930	5,195	80	2,680





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 03/19/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RDY	GLD	BH	CM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	14,545	320	0	0	200	100	200	150	550	1,050	0	75	0	10	130	17,330	615	100	0	1,000
Newton Cooling Lake	1,300	0	0	0	0	0	0	0	1,600	700	0	20	0	0	0	3,620	170	25	0	2,300
Baldwin Cooling Lake	0	0	0	0	0	0	0	0	0	450	0	0	0	0	0	450	210	130	0	280
Sangchris Cooling Lake	10	0	0	0	0	0	0	20	0	0	0	0	0	0	0	30	110	15	0	520
COOLING LK. SUBTOTAL	15,855	320	0	0	200	100	200	170	2,150	2,200	0	95	0	10	130	21,430	1,105	270	0	4,100
Shelbyville Reservoir	3,645	0	0	0	320	10	150	0	10	0	0	0	0	0	5	4,140	85	150	0	0
Carlyle Reservoir	1,400	0	200	1,500	5,100	0	0	1,950	2,000	0	50	0	0	0	0	12,200	0	200	400	3,600
Rend Lake Reservoir	1,725	0	0	250	1,700	0	0	1,300	0	3,250	0	0	0	0	0	8,225	25	0	75	600
RESERVOIR SUBTOTAL	6,770	0	200	1,750	7,120	10	150	3,250	2,010	3,250	50	0	0	0	5	24,565	110	350	475	4,200
Bellrose Preserve Area	150	0	0	0	150	0	0	900	0	0	0	0	0	0	0	1,200	0	0	5	800
Cairo-Cape Girardeau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cape Girardeau-Grand Tower	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Grand Tower-Chester	0	0	0	0	0	0	0	40	10	20	0	0	0	0	0	70	0	0	0	20
Chester-St. Genevieve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0
St. Genevieve-Crystal City	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Crystal City-Kimmswick	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Kimmswick-St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Horseshoe Lk. (St. Louis)	375	0	100	0	0	0	0	1,100	0	0	0	1,800	0	0	0	3,375	0	0	0	3,100
S. MISS. RIVER SUBTOTAL	555	0	100	0	150	0	0	2,040	10	20	0	1,800	0	0	0	4,675	0	0	30	3,920
TOTAL	23,180	320	300	1,750	7,470	110	350	5,460	4,170	5,470	50	1,895	0	10	135	50,670	1,215	620	505	12,220





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

## COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 03/30/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	1,160	10	0	0	420	70	20	0	25	50	0	0	0	0	0	0	0	0	1,755	40	0	0	1,105
Newton Cooling Lake	25	0	0	0	0	0	0	0	770	25	0	0	30	0	0	0	0	0	850	45	0	0	300
Baldwin Cooling Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	60	0	140
Sangchris Cooling Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0
COOLING LK. SUBTOTAL	1,185	10	0	0	420	70	20	0	795	75	0	0	30	0	0	0	0	0	2,605	130	75	0	1,545
Shelbyville Reservoir	150	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	190	50	0	0	210
Carlyle Reservoir	20	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	220	0	150	450	50
Rend Lake Reservoir	15	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	50	20	0	0	65
RESERVOIR SUBTOTAL	185	0	0	0	75	0	0	200	0	0	0	0	0	0	0	0	0	0	460	70	150	450	325
Bellrose Preserve Area	0	0	0	25	75	0	0	220	0	0	0	0	110	0	0	0	0	0	430	10	15	0	600
Cairo-Cape Girardeau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Cape Girardeau-Grand Tower	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Tower-Chester	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chester-St. Genevieve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Genevieve-Crystal City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal City-Kimmswick	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kimmswick-St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Horseshoe Lk. (St. Louis)	15	0	0	0	0	0	0	325	0	0	0	0	0	0	0	0	0	0	340	0	0	0	325
S. MISS. RIVER SUBTOTAL	15	0	0	25	75	0	0	545	0	0	0	0	110	0	0	0	0	0	770	10	15	0	930
TOTAL	1,385	10	0	25	570	70	20	745	795	75	0	0	140	0	0	0	0	0	3,835	210	240	450	2,800



**STUDY 104**  
AERIAL CENSUSES OF WATERFOWL

**JOB 104.2**  
FALL WATERFOWL CENSUSES ALONG THE  
ILLINOIS RIVER, MISSISSIPPI RIVER, AND  
CENTRAL-SOUTHERN ILLINOIS RESERVOIRS





Aerial inventories of waterfowl were conducted weekly during the 1998 fall migration in the Illinois River valley from Spring Valley south to Grafton and in the central Mississippi River valley from Grafton north to Rock Island (page 61). Inventories were made on 2 and 8 September; 7, 13, 20, and 26 October; 4, 12, 17, and 23 November; 2, 7, 14, and 22 December; and 7 January (incomplete Mississippi River valley). Biweekly inventories were conducted in the lower Mississippi River valley from Cairo north to St. Louis and on power plant cooling lakes and major reservoirs in central and southern Illinois on 14 and 27 October; 13 and 24 November; 8 and 23 December; and 12 January (incomplete) (page 122).

The 1998 fall flight forecast of 84 million for total ducks was lower than the 1997 prediction of 90 million; however, it was well above the long term average. River levels on the Illinois River remained high until mid-July, delaying establishment of moist-soil plants. Due to the elevated water levels, only those public and private areas with higher ground or protection from the river were able to plant agricultural crops for waterfowl. Late-seeded millet and milo as well as late season moist-soil plants colonizing exposed mud flats produced limited waterfowl food. Moist-soil plant production in the Mississippi River valley was rated as good to excellent. Islands were well vegetated and dabbling ducks utilized these areas until higher river levels flooded the fringe habitat in late October. The peak (highest) numbers of total ducks inventoried during the fall of 1998 decreased in the Illinois River valley and increased in the central Mississippi River valley. In the Illinois River valley, the peak number of total ducks for 1998 occurred on 12 November and was 499,945 (Figure 2), 8 percent lower than the 1997 peak of 545,790 but 22 percent higher than the five-year average of 408,153 for 1993-1997 (Table 1, Figure 3). The peak number of



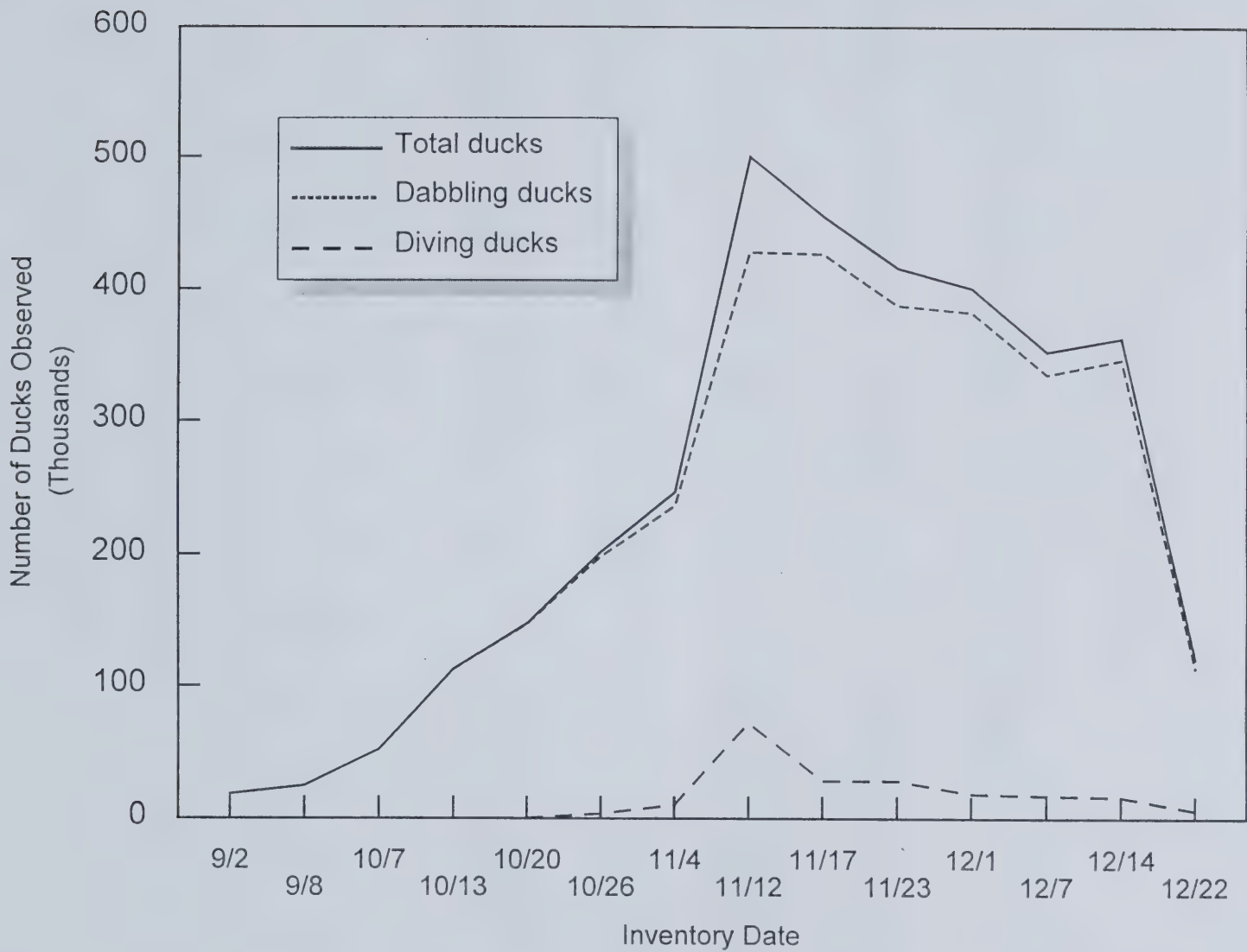


Figure 2. Numbers of dabbling ducks, diving ducks, and total ducks observed per aerial inventory during fall 1998 in the Illinois River valley.



Table 1. Peak numbers for various species of waterfowl for the falls of 1998 and 1997, the average for 1993-1997, and the percentage change of the 1998 values from fall 1997 and from the 1993-1997 average.

Species and Regions	1998	1997	1993-1997 Average	Percent Change from 1997	Percent Change from 1993-1997 Average
<b>Mallard</b>					
Illinois River	327,625	406,365	322,823	-19	1
Central Mississippi River	310,695	156,300	121,245	99	156
Cooling Lakes	29,050	17,845	21,274	63	37
Reservoirs	57,360	119,125	70,450	-52	-19
Lower Mississippi River	12,395	6,525	5,311	90	133
<b>American black duck</b>					
Illinois River	21,180	25,875	14,990	-18	41
Central Mississippi River	5,925	4,100	2,039	45	191
Cooling Lakes	4,200	1,800	1,865	133	125
Reservoirs	6,905	4,660	3,602	48	92
Lower Mississippi River	530	200	210	165	152
<b>Northern pintail</b>					
Illinois River	35,570	52,575	28,945	-32	23
Central Mississippi River	43,330	45,500	24,570	-5	76
Cooling Lakes	2,470	1,625	1,805	52	37
Reservoirs	9,210	11,560	8,947	-20	3
Lower Mississippi River	3,000	1,200	650	150	362
<b>Blue-winged teal</b>					
Illinois River	8,665	23,925	14,844	-64	-42
Central Mississippi River	3,995	8,780	3,854	-54	4
Cooling Lakes	0	40	173	-100	-100
Reservoirs	1,825	1,650	934	11	95
Lower Mississippi River	0	0	5	---	-100
<b>Green-winged teal</b>					
Illinois River	30,300	33,670	21,369	-10	42
Central Mississippi River	17,670	21,625	11,920	-18	48
Cooling Lakes	1,150	600	1,436	92	-20
Reservoirs	23,720	17,000	10,260	40	131
Lower Mississippi River	1,200	500	625	140	92
<b>American wigeon</b>					
Illinois River	11,900	12,950	10,639	-8	12
Central Mississippi River	5,725	11,300	6,855	-49	-16
Cooling Lakes	900	750	1,965	20	-54
Reservoirs	2,600	6,700	4,880	-61	-47
Lower Mississippi River	450	150	250	200	80
<b>Gadwall</b>					
Illinois River	35,525	28,060	18,662	27	90
Central Mississippi River	17,325	18,750	12,260	-8	41
Cooling Lakes	1,700	2,250	1,570	-24	8
Reservoirs	8,000	5,800	4,730	38	69
Lower Mississippi River	300	700	900	-57	-67
<b>Northern shoveler</b>					
Illinois River	10,685	3,900	6,190	174	73
Central Mississippi River	5,205	3,900	2,694	33	93
Cooling Lakes	1,020	300	290	240	252
Reservoirs	1,500	2,350	1,790	-36	-16
Lower Mississippi River	300	200	60	50	400
<b>Dabbling Ducks</b>					
Illinois River	427,825	499,670	389,594	-14	10
Central Mississippi River	373,170	223,550	158,295	67	136
Cooling Lakes	37,870	20,145	25,563	88	48
Reservoirs	108,795	162,425	100,702	-33	8
Lower Mississippi River	15,095	7,420	7,400	103	104





Table 1, continued.

Species and Regions	1998	1997	1993-1997 Average	Percent Change from 1997	Percent Change from 1993-1997 Average
<b>Lesser scaup</b>					
Illinois River	32,225	7,550	5,082	327	534
Central Mississippi River	25,570	23,700	16,460	8	55
Cooling Lakes	3,100	900	1,395	244	122
Reservoirs	5,500	650	3,620	746	52
Lower Mississippi River	300	1,500	534	-80	-44
<b>Ring-necked duck</b>					
Illinois River	29,585	23,100	11,545	28	156
Central Mississippi River	13,190	14,500	13,285	-9	-1
Cooling Lakes	2,450	695	1,529	253	60
Reservoirs	3,960	3,600	4,800	10	-18
Lower Mississippi River	300	1,500	500	-80	-40
<b>Canvasback</b>					
Illinois River	5,300	7,100	4,100	-25	29
Central Mississippi River	36,900	49,100	28,915	-25	28
Cooling Lakes	270	150	180	80	50
Reservoirs	500	1,500	740	-67	-32
Lower Mississippi River	400	200	74	100	441
<b>Redhead</b>					
Illinois River	1,350	1,100	240	23	463
Central Mississippi River	2,800	3,000	1,860	-7	51
Cooling Lakes	0	0	0	---	---
Reservoirs	0	50	150	-100	-100
Lower Mississippi River	0	0	0	---	---
<b>Ruddy duck</b>					
Illinois River	8,745	2,700	760	224	1051
Central Mississippi River	3,770	3,825	1,565	-1	141
Cooling Lakes	1,580	250	65	532	2331
Reservoirs	1,450	200	80	625	1713
Lower Mississippi River	200	500	100	-60	100
<b>Common goldeneye</b>					
Illinois River	2,380	800	3,884	198	-39
Central Mississippi River	4,970	6,810	6,262	-27	-21
Cooling Lakes	30	500	259	-94	-88
Reservoirs	70	1,500	410	-95	-83
Lower Mississippi River	0	0	40	---	-100
<b>Bufflehead</b>					
Illinois River	1,420	4,470	3,309	-68	-57
Central Mississippi River	7,820	5,300	3,770	48	107
Cooling Lakes	210	225	325	-7	-35
Reservoirs	400	25	154	1500	160
Lower Mississippi River	0	300	60	-100	-100
<b>Diving ducks</b>					
Illinois River	72,095	46,020	20,003	57	260
Central Mississippi River	67,310	68,045	54,649	-1	23
Cooling Lakes	5,790	1,595	2,669	263	117
Reservoirs	11,810	4,500	8,670	162	36
Lower Mississippi River	2,500	2,500	904	0	177
<b>Total mergansers</b>					
Illinois River	850	350	3,494	143	-76
Central Mississippi River	0	1,575	2,644	-100	-100
Cooling Lakes	20	0	250	---	-92
Reservoirs	0	0	94	---	-100
Lower Mississippi River	200	0	86	---	133



Table 1, continued.

Species and Regions	1998	1997	1993-1997 Average	Percent Change from 1997	Percent Change from 1993-1997 Average
<b>Total ducks</b>					
Illinois River	499,945	545,790	408,153	-8	22
Central Mississippi River	417,810	291,300	208,690	43	100
Cooling Lakes	40,880	20,905	27,696	96	48
Reservoirs	120,605	166,770	109,341	-28	10
Lower Mississippi River	16,995	9,920	8,194	71	107
<b>Canada goose</b>					
Illinois River	7,100	30,660	29,151	-77	-76
Central Mississippi River	49,100	11,820	10,070	315	388
Cooling Lakes	150	2,740	5,239	-95	-97
Reservoirs	1,500	8,090	11,366	-81	-87
Lower Mississippi River	200	1,100	1,183	-82	-83
<b>Lesser snow goose</b>					
Illinois River	1,400	2,450	4,515	-43	-69
Central Mississippi River	19,220	9,500	10,065	102	91
Cooling Lakes	4,100	3,200	1,950	28	110
Reservoirs	11,100	9,450	4,210	17	164
Lower Mississippi River	0	0	0	---	---
<b>American coot</b>					
Illinois River	64,925	67,385	62,587	-4	4
Central Mississippi River	34,320	39,200	32,130	-12	7
Cooling Lakes	6,900	10,280	9,131	-33	-24
Reservoirs	6,700	13,345	10,219	-50	-34
Lower Mississippi River	1,350	900	1,951	50	-31





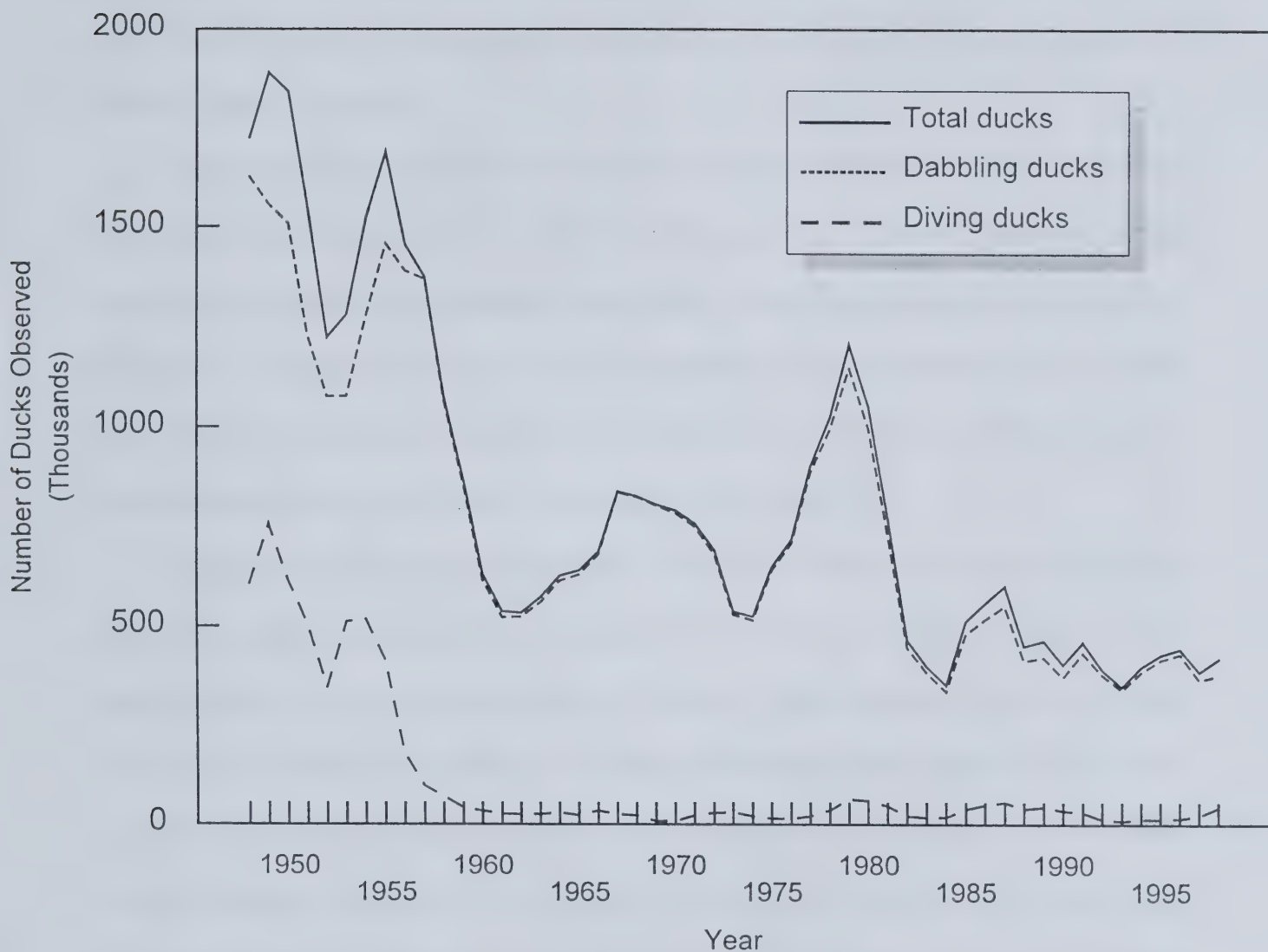


Figure 3. Three-year moving average of peak numbers of total ducks, dabbling ducks, and diving ducks aerially inventoried during fall in the Illinois River valley, 1948 -1998. A three-year moving average is the average of the peak number for a specific year and the two previous years and it is used to minimize annual fluctuations and to emphasize long-term trends.



417,810 total ducks inventoried in the central Mississippi River valley during the fall of 1998 occurred on 7 December (Figure 4) and represented a 43 percent increase from the 1997 value of 291,300 and a 100 percent increase from the 1993-1997 five-year average of 208,690 (Table 1, Figure 5).

Peak population values for many of the species inventoried in fall 1998 in the Illinois Valley were higher than those in 1997 including gadwalls, northern shovelers, lesser scaups, ring-necked ducks, redheads, ruddy ducks, common goldeneyes, and common mergansers. The peak number of mallards inventoried in the Illinois River valley during the fall of 1998 (327,625) was 19 percent lower than the fall 1997 peak (406,365) and 1 percent higher than the 1993-1997 average (322,823) (Table 1).

In the central Mississippi River valley, 1998 peak numbers for several species of ducks inventoried were higher than those for 1997 including mallards, American black ducks, northern shovelers, lesser scaups, buffleheads, Canada geese, and snow geese. The fall peak number for mallards in the central Mississippi River valley for 1998 was 310,695, more than the 1997 peak of 156,300 and the 1993-1997 average of 121,245. The fall 1998 peak number for lesser scaups in the central Mississippi River region was 25,570, an 8 percent increase from the 1997 value of 23,700 and a 55 percent increase over the 1993-1997 average of 16,460. During 1998, 1997, and the 1993-1997 period, the peak numbers of canvasbacks inventoried in the central Mississippi River valley were 36,900, 49,100, and an average of 28,915, respectively (Table 1).

The fall 1998 peak number of Canada geese in the Illinois River valley decreased to 7,100, fewer than the 1997 value of 30,660 and the 1993-1997 average of 29,151. The 1998 value (49,100) in the central Mississippi Valley increased from 1997 (11,820) by 315



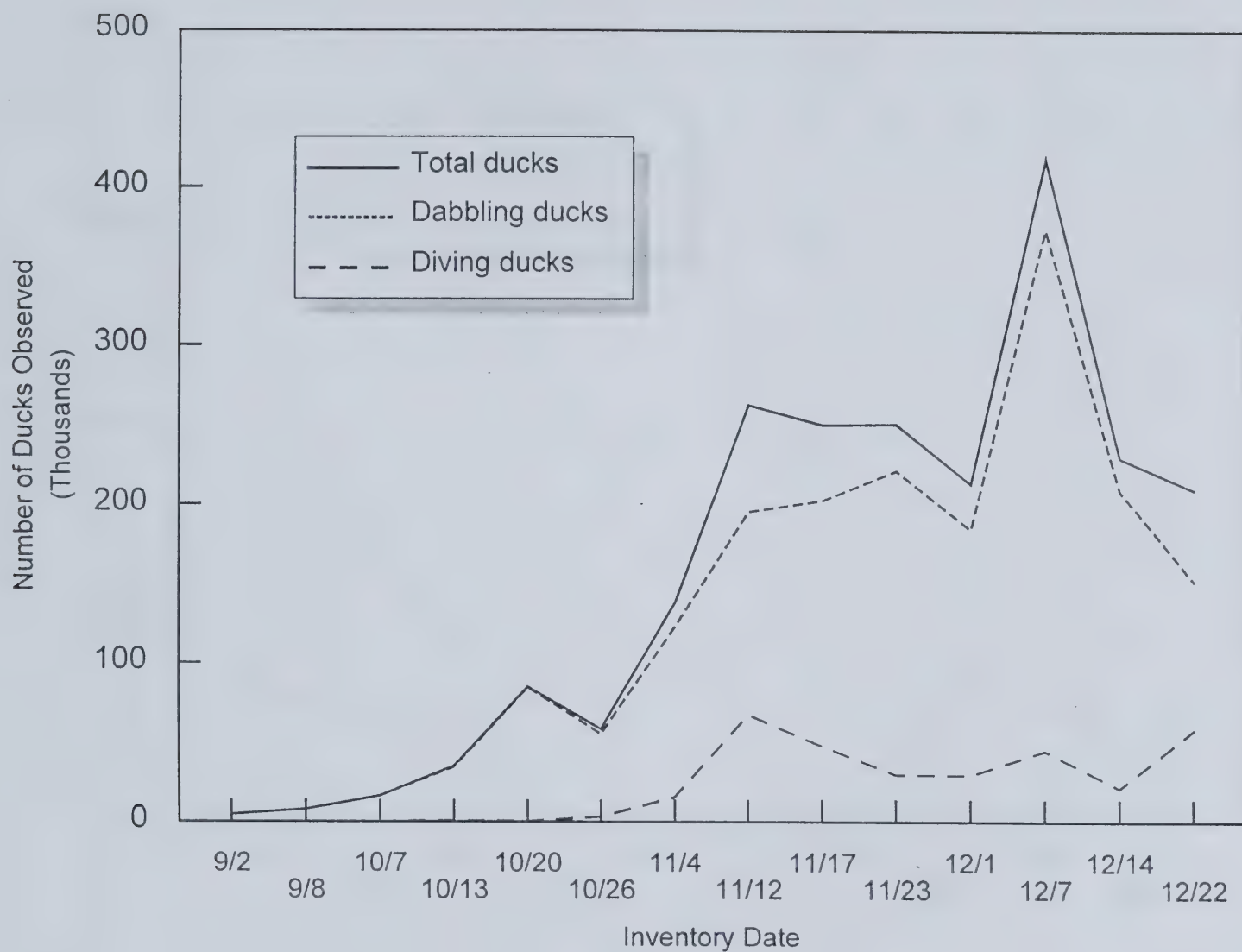


Figure 4. Numbers of dabbling ducks, diving ducks, and total ducks observed per aerial inventory during fall 1998 in the central Mississippi River valley.





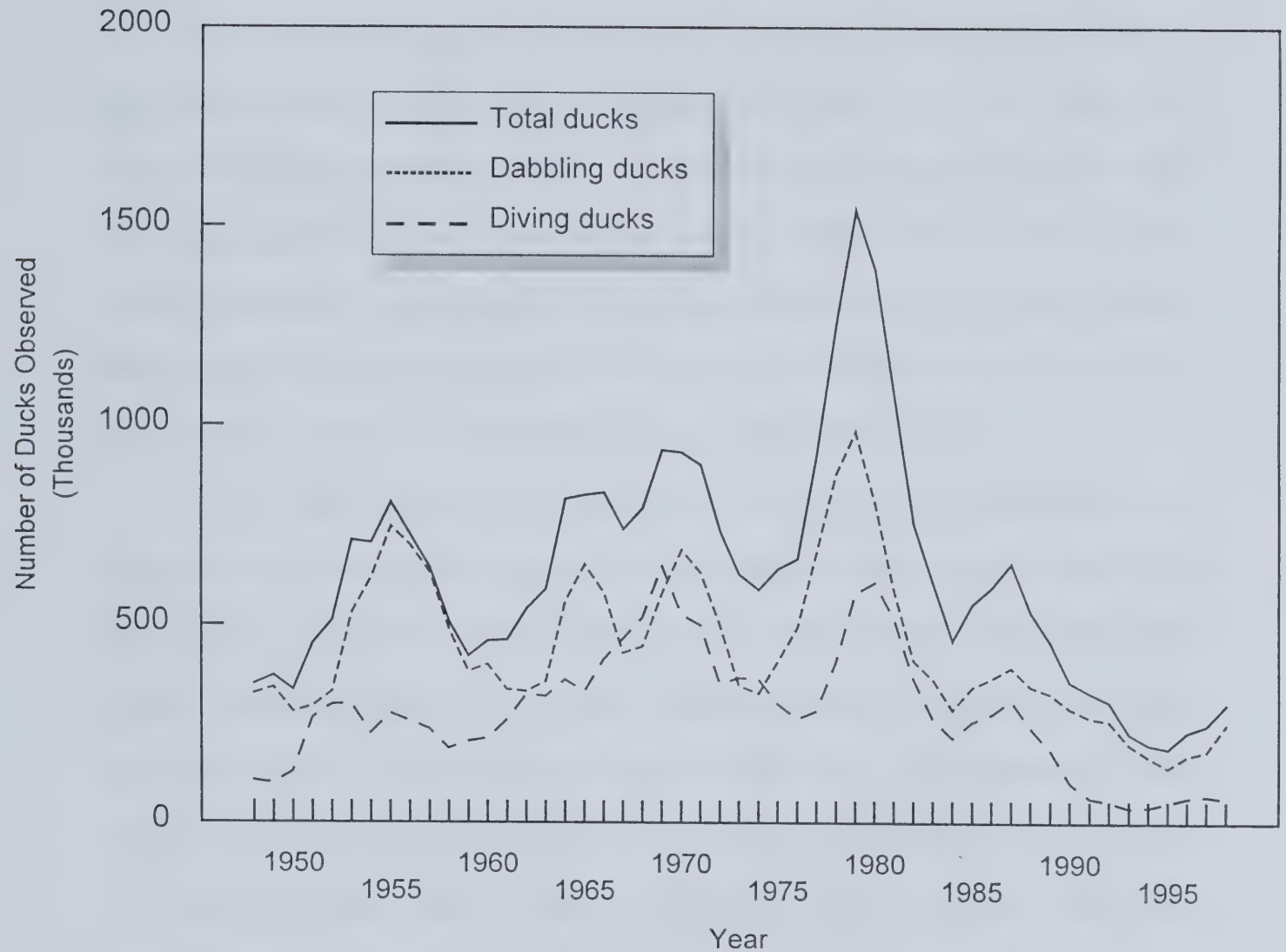


Figure 5. Three-year moving average of peak numbers of total ducks, dabbling ducks, and diving ducks aerially inventoried during fall in the central Mississippi River valley, 1948-1998. A three-year moving average is the average of the peak number for a specific year and the two previous years and it is used to minimize annual fluctuations and to emphasize long-term trends.



percent. The 1993-1997 average of peak numbers of Canada geese in the central Mississippi River valley was 10,070 (Table 1).

The number of use-days expended from 1 September - 15 December by the majority of waterfowl species inventoried during the 1998 fall migration in the Illinois River valley was slightly lower than in 1997. An increase in use-days was recorded for the following species inventoried: green-winged teals, gadwalls, northern shovelers, lesser scaups, ring-necked ducks, and ruddy ducks. In the Illinois Valley, use-days for 1998 and 1997, respectively, were 21,995,810 and 22,931,720 for total ducks, 14,883,508 and 16,771,935 for mallards, and 639,120 and 938,413 for Canada geese.

In the central Mississippi River valley the number of use-days expended from 1 September - 15 December was higher during the 1998 fall migration than in 1997 for the following species: mallards, American black ducks, northern pintails, green-winged teals, gadwalls, northern shovelers, lesser scaups, ring-necked ducks, ruddy ducks, buffleheads, and snow geese. In this region, use-days for 1998 and 1997, respectively, were 12,904,705 and 11,296,563 for total ducks, 7,506,345 and 5,549,383 for mallards, 542,705 and 536,333 for lesser scaups, 561,198 and 1,329,713 for canvasbacks, and 404,863 and 472,235 for Canada geese.

Aerial waterfowl inventories of selected power plant cooling lakes and reservoirs in central and southern Illinois and the floodplain of the lower Mississippi River valley from Cairo to St. Louis were conducted during the 1998 fall migration. Areas inventoried included Newton, Sangchris, Clinton, and Baldwin cooling lakes and Shelbyville, Carlyle, and Rend Lake reservoirs. High lake levels at all three of the reservoirs limited the amount of waterfowl food that could be established. Food conditions at the three reservoirs were





rated as poor at Lake Shelbyville and fair at Carlyle and Rend lakes in the impoundments. Rend Lake reported good crop production for geese in the upland refuge at Nason Point.

In the lower Mississippi River valley, the peak number of total ducks inventoried during the fall of 1998 occurred on 8 December and was 16,995 (Figure 6), more than the value of 9,920 in 1997 and the 1993-1997 average of 8,194. At the cooling lakes, the 1998 fall peak number of 40,880 total ducks recorded on 8 December (Figure 7) was more than the 1997 value of 20,905 and the 1993-1997 average of 27,696. The 1998 fall peak number of total ducks recorded on 13 November at the three reservoirs was 120,605 (Figure 8), fewer than the 1997 value of 166,770 but more than the 1993-1997 average of 109,341. During 1998, 1997, and the 1993-1997 period, the peak numbers of mallards inventoried in the lower Mississippi River valley were 12,395, 6,525, and 5,311, respectively. At the cooling lakes the fall peak numbers for mallards were 29,050 for 1998, 17,845 for 1997, and an average of 21,274 for 1993-1997. The peak numbers for mallards at the reservoirs were 57,360 for 1998, 119,125 for 1997, and an average of 70,450 for 1993-1997 (Table 1).

Peak numbers of Canada geese during the fall of 1998 were fewer at the cooling lakes and reservoirs compared with 1997 values. At the cooling lakes, peak numbers of Canada geese inventoried during the fall migrations of 1998, 1997, and the 1993-1997 period were 150, 2,740 and an average of 5,239, respectively. At the reservoirs, peak numbers of Canada geese were 1,500 in 1998 compared with 8,090 in 1997 and an average of 11,366 for 1993-1997. Peak numbers for Canada geese in the lower Mississippi River valley were 200 for 1998, 1,100 for 1997, and an average of 1,183 for 1993-1997 (Table 1).



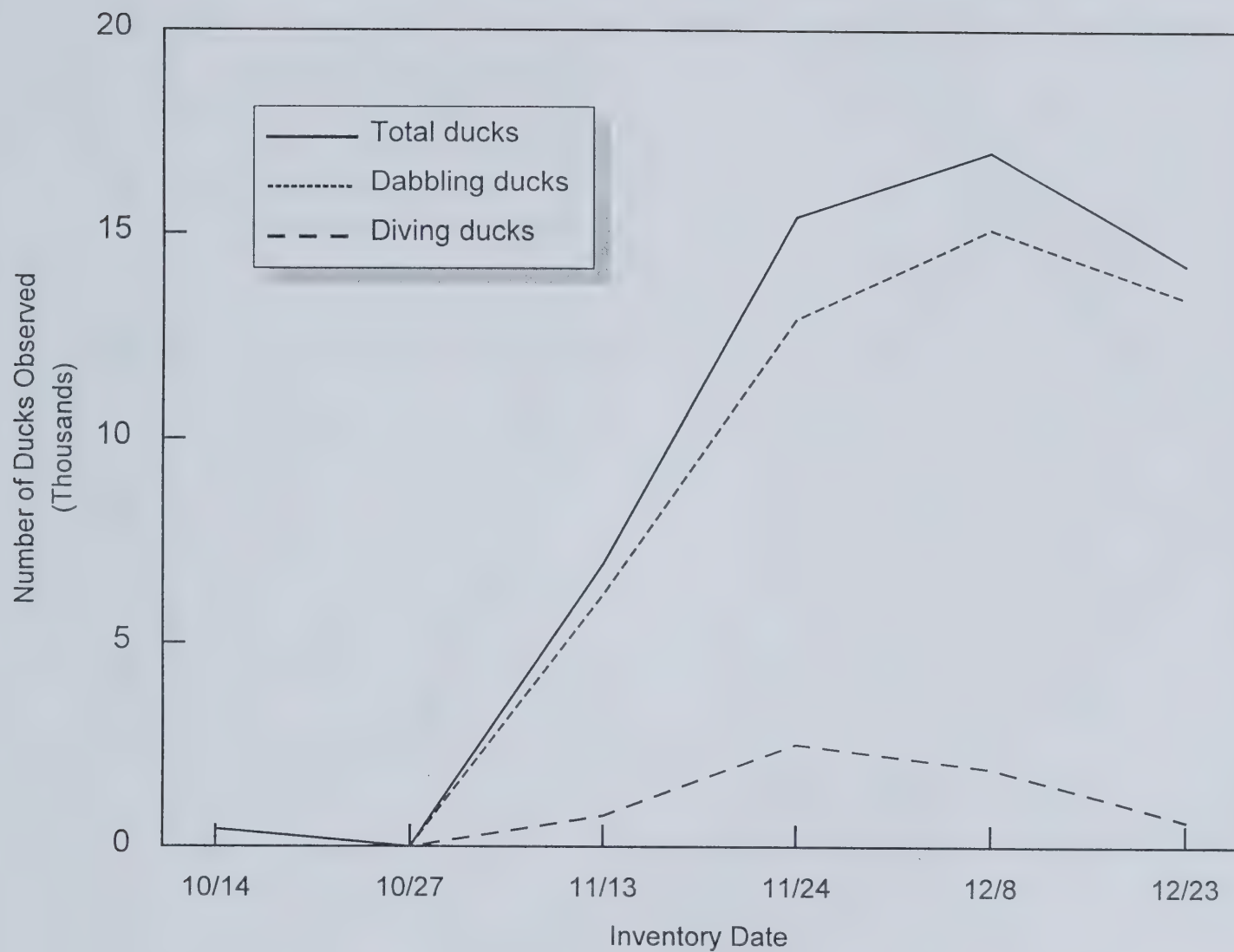


Figure 6. Numbers of dabbling ducks, diving ducks, and total ducks observed per aerial inventory during fall 1998 in the lower Mississippi River valley.



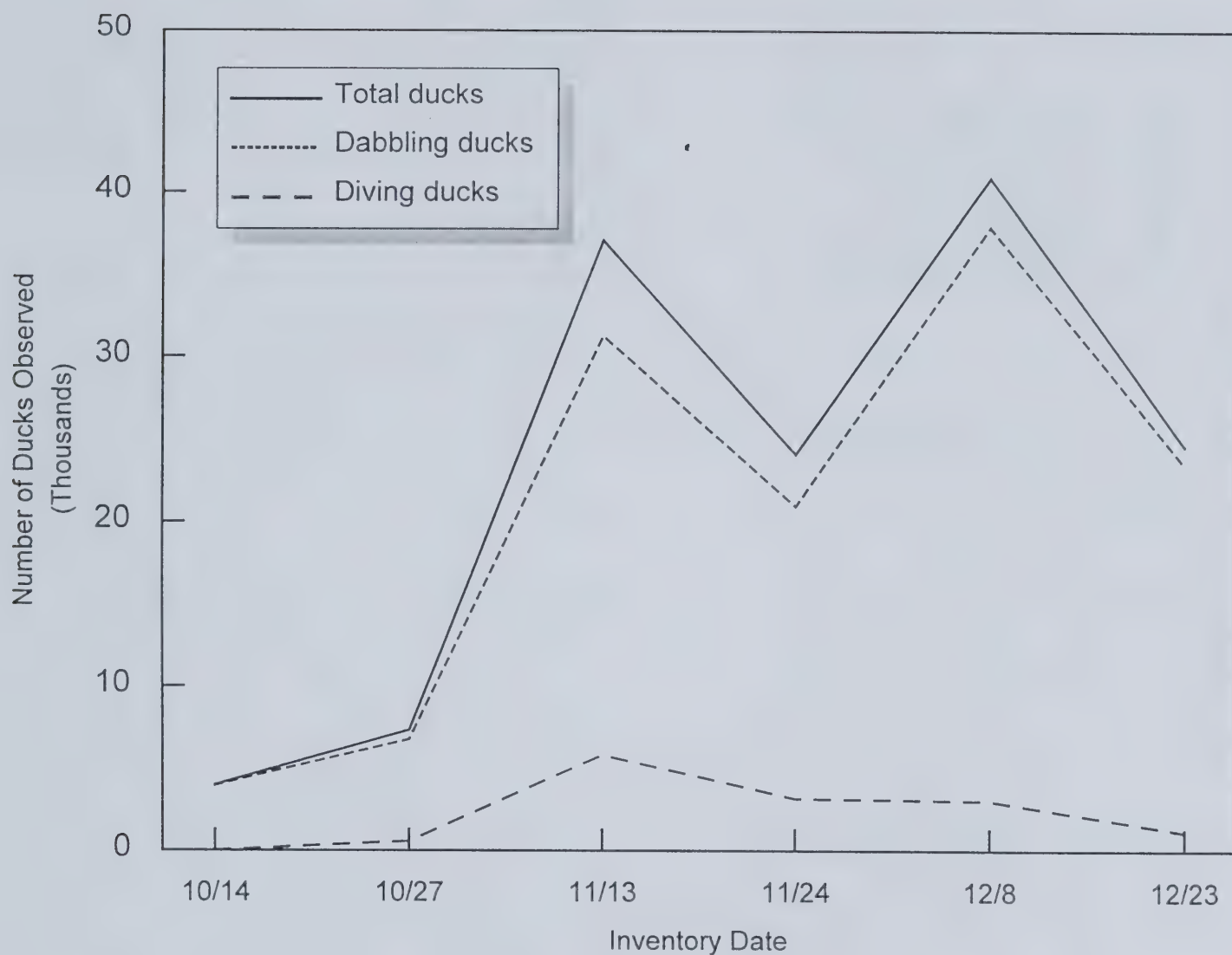


Figure 7. Numbers of dabbling ducks, diving ducks, and total ducks observed per aerial inventory during fall 1998 at selected power plant cooling lakes in central and southern Illinois.





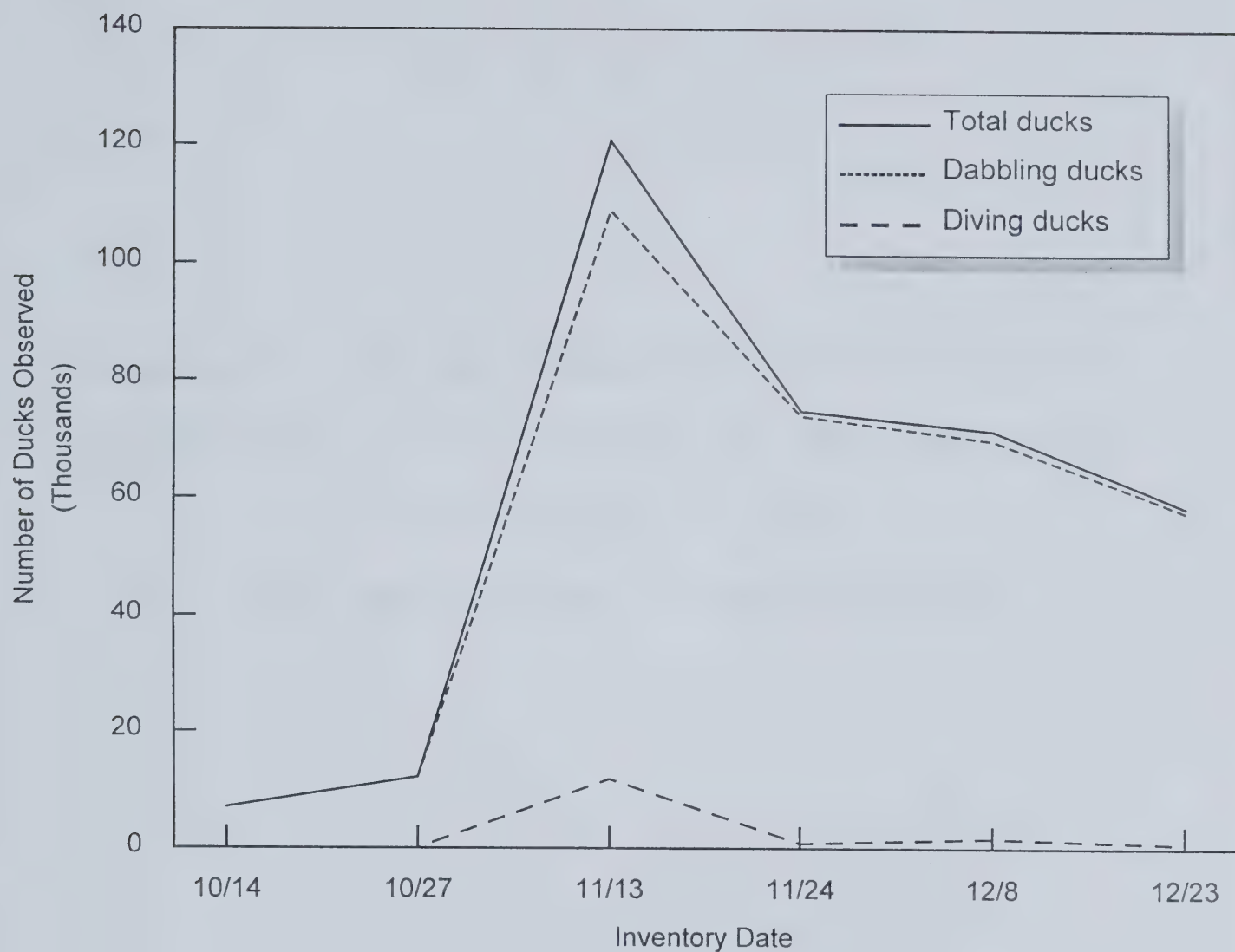


Figure 8. Numbers of dabbling ducks, diving ducks, and total ducks observed per aerial inventory during fall 1998 at selected reservoirs in central and southern Illinois.



1998 FALL WATERFOWL CENSUSES OF THE UPPER AND LOWER  
DIVISIONS OF THE ILLINOIS AND CENTRAL MISSISSIPPI RIVERS  
BY DATE AND LOCATION

(See Appendix A for common name abbreviations)





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY Date: 09/02/98

Observer: Michelle Georgi

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depue, Spring	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	450	0	0	625	100	50	0	0	0	0	0	0	0	0	0	0	0	0	1,225	0	0	0	0
Senachwine Lake	120	0	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	180	50	0	40	0
Swan Lake	500	10	100	400	800	300	0	0	0	0	0	0	0	0	0	0	0	0	2,110	20	0	0	0
Sawmill Lake	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0
Billsbach Lake	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Weis Lake	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0
Sparland	50	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	365	0	0	170	20	10	0	0	0	0	0	0	0	0	0	0	0	0	565	250	0	0	0
Goose Lake	50	0	0	10	200	0	0	0	0	0	0	0	0	0	0	0	0	0	260	250	0	0	0
Upper Peoria	0	0	0	25	50	0	0	0	0	0	0	0	0	0	0	0	0	0	75	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	1,535	10	100	1,290	1,250	375	0	0	0	0	0	0	0	0	0	0	0	0	4,560	570	0	40	0
TOTAL LOWER	1,065	0	60	7,375	4,770	120	0	310	0	0	0	0	0	0	0	0	0	0	13,720	930	0	0	60
TOTAL	2,620	10	160	8,665	6,020	495	0	310	0	0	0	0	0	0	0	0	0	0	18,280	1,500	0	40	60
10 Year Average 1988-97	7,745	11	596	13,197	912	206	7	6											22,679	1,191	0		50



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 09/02/98

Observer: Michelle Georgi

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	20	0	0	0
Powerlon Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spring Lake	20	0	0	100	200	0	0	10	0	0	0	0	0	0	0	0	0	0	330	25	0	0	40
Goose Lake	10	0	10	25	0	0	0	20	0	0	0	0	0	0	0	0	0	0	65	0	0	0	0
Rice Lake	75	0	20	600	160	20	0	0	0	0	0	0	0	0	0	0	0	0	875	0	0	0	20
Big Lake	10	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0
Banner Marsh	30	0	0	10	125	0	0	0	0	0	0	0	0	0	0	0	0	0	165	70	0	0	0
Duck Creek	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	45	0	0	0
Clear Lake	5	0	0	100	420	0	0	0	0	0	0	0	0	0	0	0	0	0	525	40	0	0	0
Chautauqua	300	0	30	3,600	2,500	100	0	150	0	0	0	0	0	0	0	0	0	0	6,680	600	0	0	0
Quiver Creek	25	0	0	30	5	0	0	0	0	0	0	0	0	0	0	0	0	0	60	40	0	0	0
Quiver Lake	5	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0
Spoon Btms/Emiq	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
Bath Lake	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	20	0	0	0
Moscow Lake	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Jack Lake	190	0	0	420	20	0	0	0	0	0	0	0	0	0	0	0	0	0	630	0	0	0	0
Grass Lake	300	0	0	825	500	0	0	100	0	0	0	0	0	0	0	0	0	0	1,725	0	0	0	0
Anderson Lake	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Snicarte Slough	10	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0
Ingram Lake	0	0	0	25	10	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0
Chain Lake	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Stewart Lake	5	0	0	10	60	0	0	10	0	0	0	0	0	0	0	0	0	0	85	0	0	0	0
Crane Lake	25	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	125	0	0	0	0
Cuba Island	0	0	0	20	0	0	0	20	0	0	0	0	0	0	0	0	0	0	40	40	0	0	0
Sanganois	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treadway Lake	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	15	0	0	840	300	0	0	0	0	0	0	0	0	0	0	0	0	0	1,155	30	0	0	0
Meredosia Lake	10	0	0	650	220	0	0	0	0	0	0	0	0	0	0	0	0	0	880	0	0	0	0
Smith Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOWER	1,085	0	60	7,375	4,770	120	0	310	0	0	0	0	0	0	0	0	0	0	13,720	930	0	0	60





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 09/02/98

Observer: Michelle Georgi

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Arthur Refuge	5	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	5	0	0	0
Nauvoo-Ft. Mad.	30	0	0	15	80	100	0	0	0	0	0	0	0	0	0	0	0	0	225	40	0	0	0
Ft. Madison-Dallas	20	0	0	35	0	0	0	5	0	0	0	0	0	0	0	0	0	0	60	50	0	0	0
Dallas-Burlington	25	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	75	40	0	0	0
Turkey Slough	50	0	0	730	200	0	0	0	0	0	0	0	0	0	0	0	0	0	980	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oquawka Refuge	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0
Oqua.-Keithsburg	0	0	0	240	25	10	0	0	0	0	0	0	0	0	0	0	0	0	275	0	0	0	0
Keithsburg Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	30	0	0	150	40	0	0	0	0	0	0	0	0	0	0	0	0	0	220	0	0	110	0
Louisa-Muscatine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Muscatine-Moline	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	15	0	0	0
Andalusia Refuge	20	0	10	45	5	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0	0
TOTAL UPPER	235	0	10	1,355	400	110	0	5	0	0	0	0	0	0	0	0	0	0	2,115	180	0	110	0
TOTAL LOWER	170	0	0	2,165	185	0	0	0	0	0	0	0	0	0	0	0	0	0	2,520	150	0	90	0
TOTAL	405	0	10	3,520	585	110	0	5	0	0	0	0	0	0	0	0	0	0	4,635	330	0	200	0
10 Year Average 1988-97	2,083	6	17	2,732	191	81	0	0											5,110	228	0		19





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 09/02/98

Observer: Michelle Georgi

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stump Lake	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Swan Lake	0	0	0	1,075	110	0	0	0	0	0	0	0	0	0	0	0	0	0	1,185	40	0	90	0
Gilbert Lake	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Grafton-Alton	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Marais Temps C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Long Lake	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Dardenne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cuivre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Refuge	150	0	0	640	75	0	0	0	0	0	0	0	0	0	0	0	0	0	865	10	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Twin Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0
Clarksville Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	10	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	0	0	0	310	0	0	0	0	0	0	0	0	0	0	0	0	0	0	310	0	0	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meyer-Keokuk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOWER	170	0	0	2,165	185	0	0	0	0	0	0	0	0	0	0	0	0	0	2,520	150	0	90	0



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 09/08/98

Observer: Michelle Georgi

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNV/B	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depue, Spring	150	0	0	100	500	0	0	0	0	0	0	0	0	0	0	0	0	0	750	130	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	200	0	75	15	25	50	0	0	0	0	0	0	0	0	0	0	0	0	365	200	0	0	0
Senachwine Lake	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0
Swan Lake	400	10	100	300	1,300	0	0	0	0	0	0	0	0	0	0	0	0	0	2,110	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0
Sparland	10	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	40	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	40	5	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	95	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
Goose Lake	300	0	25	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	525	800	0	0	0
Upper Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	1,120	15	200	445	2,075	50	0	0	0	0	0	0	0	0	0	0	0	0	3,905	1,225	0	40	0
TOTAL LOWER	2,130	0	480	7,185	9,495	595	0	670	0	0	0	0	0	0	0	0	0	0	20,555	1,225	0	0	520
TOTAL	3,250	15	680	7,630	11,570	645	0	670	0	0	0	0	0	0	0	0	0	0	24,460	2,450	0	40	520
10 Year Average 1988-97	7,005	17	376	9,697	1,168	564	73	116	0	0	0	0	0	0	0	0	0	0	19,016	1,010	0	0	242





ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 09/08/98

Observer: Michelle Georgi

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	0	225	0	0	0	0	0	0	0	0	0	0	0	0	0	225	155	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spring Lake	20	0	0	10	5	5	0	0	0	0	0	0	0	0	0	0	0	0	40	20	0	0	250
Goose Lake	250	0	0	100	50	15	0	20	0	0	0	0	0	0	0	0	0	0	435	5	0	0	0
Rice Lake	75	0	0	120	450	10	0	0	0	0	0	0	0	0	0	0	0	0	655	0	0	0	20
Big Lake	20	0	10	300	50	20	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0
Banner Marsh	50	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	0	0	105	175	0	0	10
Duck Creek	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	45	0	0	0
Clear Lake	50	0	0	10	50	0	0	0	0	0	0	0	0	0	0	0	0	0	110	65	0	0	10
Chautauqua	900	0	400	4,820	6,500	500	0	620	0	0	0	0	0	0	0	0	0	0	13,740	560	0	0	0
Quiver Creek	45	0	0	40	55	0	0	0	0	0	0	0	0	0	0	0	0	0	140	40	0	0	0
Quiver Lake	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Spoon Btms/Emiq.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bath Lake	10	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	15	75	0	0	0
Moscow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jack Lake	180	0	20	400	1,400	0	0	10	0	0	0	0	0	0	0	0	0	0	2,010	0	0	0	200
Grass Lake	45	0	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	345	0	0	0	0
Anderson Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snicarte Slough	20	0	0	10	50	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0	0
Ingram Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chain Lake	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Stewart Lake	300	0	50	500	300	25	0	20	0	0	0	0	0	0	0	0	0	0	1,195	0	0	0	0
Crane Lake	25	0	0	0	40	10	0	0	0	0	0	0	0	0	0	0	0	0	75	40	0	0	10
Cuba Island	70	0	0	50	130	0	0	0	0	0	0	0	0	0	0	0	0	0	250	10	0	0	0
Sanganolis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treadway Lake	10	0	0	500	100	0	0	0	0	0	0	0	0	0	0	0	0	0	610	0	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	10	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	20
Meredosia Lake	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30	35	0	0	0
Smith Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Areas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOWER	2,130	0	480	7,185	9,495	595	0	670	0	0	0	0	0	0	0	0	0	0	20,555	1,225	0	0	520



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 09/08/98

Observer: Michelle Georgi

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Arthur Refuge	50	0	0	40	20	0	0	0	0	0	0	0	0	0	0	0	0	0	110	200	0	0	
Nauvoo-Ft. Mad.	70	0	15	1,025	400	0	0	0	0	0	0	0	0	0	0	0	0	0	1,510	5	0	250	0
Ft. Madison-Dallas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Dallas-Burlington	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	30	0	0	
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Crystal Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oqua.-Keithsburg	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	25	0	0	
Keithsburg Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	10	
Louisa Refuge	10	0	25	150	90	140	0	0	0	0	0	0	0	0	0	0	0	0	415	130	0	230	
Louisa-Muscatine	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10	0	0	
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	
Andalusia Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL UPPER	175	0	40	1,215	515	140	0	0	0	0	0	0	0	0	0	0	0	0	2,085	465	0	480	10
TOTAL LOWER	1,240	0	515	930	2,810	220	0	0	0	0	0	0	0	0	0	0	0	0	5,715	75	0	50	10
TOTAL	1,415	0	555	2,145	3,325	360	0	0	0	0	0	0	0	0	0	0	0	0	7,800	540	0	530	20
10 Year Average 1988-97	2,647	11	196	4,034	403	267	27	14	0	0	0	0	0	0	0	0	0	0	7,598	281	0	274	274





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 09/08/98

Observer: Michelle Georgi

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stump Lake	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	10
Swan Lake	1,165	0	500	750	1,960	220	0	0	0	0	0	0	0	0	0	0	0	0	4,595	50	0	0	0
Gilbert Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Long Lake	0	0	0	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0
Dardenne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cuivre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Refuge	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0
Twin Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clarksville Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	75	0	0	150	500	0	0	0	0	0	0	0	0	0	0	0	0	0	725	0	0	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30	10	0	0	0
Hannibal-Quincy	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0
Quincy-Meyer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meyer-Keokuk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOWER	1,240	0	515	930	2,810	220	0	0	0	0	0	0	0	0	0	0	0	0	5,715	75	0	50	10





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY Date: 10/07/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	10
Depue, Spring	110	0	0	20	125	0	0	0	0	0	0	0	0	0	0	0	0	0	255	0	0	0	100
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	1,600	0	200	200	900	400	0	500	0	0	0	0	0	0	0	0	0	0	3,800	370	0	0	700
Senachwine Lake	200	10	0	0	150	0	0	0	0	0	0	0	0	0	0	0	0	0	360	0	0	20	0
Swan Lake	1,050	20	100	0	200	300	100	300	0	0	0	0	0	0	0	0	0	0	2,070	30	0	0	0
Sawmill Lake	0	0	0	50	150	0	0	100	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0
Billsbach Lake	0	0	0	0	150	0	0	10	0	0	0	0	0	0	0	0	0	0	160	0	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sparland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	100	500	0	0	0	0	0	0	0	0	0	0	0	0	0	600	40	0	0	0
Hitchcock Slough	100	0	0	0	300	0	0	200	0	0	0	0	0	0	0	0	0	0	600	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	2,000	20	800	200	4,000	0	0	500	0	0	0	0	0	0	0	0	0	0	7,520	100	0	0	3,000
Goose Lake	200	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	230	0	0	0	600
Upper Peoria	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	50
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
TOTAL UPPER	5,360	50	1,100	570	6,605	700	100	1,610	0	0	0	0	0	0	0	0	0	0	16,095	570	0	20	4,460
TOTAL LOWER	19,630	70	4,490	1,705	7,155	820	1,160	710	0	0	0	0	0	0	0	0	0	0	35,740	1,950	0	700	13,610
TOTAL	24,990	120	5,590	2,275	13,760	1,520	1,260	2,320	0	0	0	0	0	0	0	0	0	0	51,835	2,520	0	720	18,070
10 Year Average 1988-97	27,441	264	5,204	3,170	5,237	4,072	1,189	364	272	83	104	0							47,509	5,275	286		29,318



ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

Date: 10/07/98																Observer: Michelle Horath																				
LOWER ILLINOIS RIVER VALLEY																TOTAL DUCKS																				
LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	CG	SG	PEL	COOT														
Pekin Lake	100	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	50														
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45														
Spring Lake	40	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	50	235	0	7,500														
Goose Lake	50	0	0	100	500	0	0	0	0	0	0	0	0	0	0	0	0	0	650	0	0	0														
Rice Lake	180	0	20	25	50	0	15	0	0	0	0	0	0	0	0	0	0	0	290	90	0	400														
Big Lake	20	0	30	0	225	0	0	0	0	0	0	0	0	0	0	0	0	0	275	10	0	400														
Banner Marsh	50	0	0	30	20	0	0	0	0	0	0	0	0	0	0	0	0	0	100	185	0	0														
Duck Creek	25	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	35	0	0	10														
Clear Lake	230	0	20	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	350	255	0	20														
Chautauqua	8,600	20	2,650	450	1,200	600	450	400	0	0	0	0	0	0	0	0	0	0	14,370	820	0	2,700														
Quiver Creek	400	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	415	0	0	0														
Quiver Lake	30	0	0	0	0	20	0	50	0	0	0	0	0	0	0	0	0	0	100	50	0	0														
Spoon Blms/Emiq.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0														
Bath Lake	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0														
Moscow Lake	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0														
Jack Lake	3,725	0	600	100	700	75	20	0	0	0	0	0	0	0	0	0	0	0	5,220	25	0	450														
Grass Lake	400	0	0	0	800	0	25	0	0	0	0	0	0	0	0	0	0	0	1,225	0	0	250														
Anderson Lake	2,200	50	600	75	300	0	100	30	0	0	0	0	0	0	0	0	0	0	3,355	0	0	260														
Snicare Slough	800	0	0	300	30	75	0	10	0	0	0	0	0	0	0	0	0	0	1,215	10	0	0														
Ingram Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50														
Chain Lake	0	0	10	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	40	10	0	25														
Stewart Lake	1,700	0	300	25	2,500	0	50	0	0	0	0	0	0	0	0	0	0	0	4,575	0	0	120														
Crane Lake	50	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	75	10	0	0														
Cuba Island	430	0	200	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	1,130	40	0	30														
Sanganois	100	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	110	0	0	0														
Treadway Lake	20	0	10	300	0	10	0	0	0	0	0	0	0	0	0	0	0	0	340	0	0	0														
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0														
Big Lake	120	0	0	200	0	40	0	100	0	0	0	0	0	0	0	0	0	0	460	70	0	800														
Meredosia Lake	240	0	0	50	300	0	0	100	0	0	0	0	0	0	0	0	0	0	690	105	0	500														
Smith Lake	0	0	0	0	250	0	0	0	0	0	0	0	0	0	0	0	0	0	250	0	0	0														
Matanza Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0														
Meredosia-Godar	0	0	0	50	100	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0														
TOTAL LOWER																19,630	70	4,490	1,705	7,155	820	1,160	710	0	0	0	0	0	0	0	0	35,740	1,950	0	700	13,610





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 10/07/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240
Arthur Refuge	200	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	75	0	0	150
Nauvoo-Ft. Mad.	820	0	200	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	1,220	0	0	30	2,165
Ft. Madison-Dallas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0
Turkey Slough	150	0	20	300	400	0	0	0	0	0	0	0	0	0	0	0	0	0	870	20	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125
Crystal Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oqua.-Keithsburg	125	0	120	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	495	0	0	275	150
Keithsburg Refuge	150	0	25	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	200	50	0	0	0
New Boston	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Louisa Refuge	1,100	0	200	0	50	0	300	0	0	0	0	0	0	0	0	0	0	0	1,650	890	10	0	1,650
Louisa-Muscatine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Andalusia Refuge	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	30
TOTAL UPPER	2,545	0	665	550	695	0	315	0	0	0	0	0	0	0	0	0	0	0	4,770	1,035	10	305	4,530
TOTAL LOWER	2,610	0	735	3,445	4,520	0	0	10	0	0	0	0	0	0	0	0	0	0	11,320	85	0	630	595
TOTAL	5,155	0	1,400	3,995	5,215	0	315	10	0	0	0	0	0	0	0	0	0	0	16,090	1,120	10	935	5,125
10 Year Average 1988-97	13,027	64	4,513	1,246	3,394	3,409	777	151	624	72	136	10							27,714	3,392	898		16,249



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 10/07/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	20	0	0	3,000	1,500	0	0	0	0	0	0	0	0	0	0	0	0	0	4,520	0	0	0	0
Stump Lake	85	0	0	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	485	0	0	0	100
Swan Lake	985	0	60	20	1,320	0	0	0	0	0	0	0	0	0	0	0	0	0	2,385	10	0	540	95
Gilbert Lake	25	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	0
Marais Temps C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Long Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dardenne	50	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350	0	0	0	0
Culvre	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Batchtown Pool	500	0	175	0	1,250	0	0	0	0	0	0	0	0	0	0	0	0	0	1,925	0	0	0	200
Batchtown Refuge	250	0	0	0	150	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	125	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	325	0	0	0	0
Twin Ponds	300	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0
Clarksville Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	20	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	120	20	0	0	0
La-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	230	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230	0	0	0	20
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	180
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meyer-Keokuk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0	0	0
TOTAL LOWER	2,610	0	735	3,445	4,520	0	0	10	0	0	0	0	0	0	0	0	0	0	11,320	85	0	630	595



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY Date: 10/13/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	50	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	10	0	0	0
Depue, Spring	1,150	0	250	0	0	0	400	0	0	0	0	0	0	0	0	0	0	0	1,800	300	0	0	100
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	3,000	0	4,500	500	1,250	0	0	0	0	0	0	0	0	0	0	0	0	0	9,250	2,850	20	0	2,900
Senachwine Lake	950	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	950	0	0	0	0
Swan Lake	1,500	0	500	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	2,200	0	0	0	800
Sawmill Lake	100	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0
Billsbach Lake	125	20	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	170	0	0	0	25
Weis Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	20
Sparland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0
Hitchcock Slough	1,000	100	0	0	400	0	0	0	0	0	0	0	0	0	0	0	0	0	1,500	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	5,000	300	3,000	200	800	1,500	50	1,300	0	0	0	0	0	0	0	0	0	0	12,150	300	0	0	1,200
Goose Lake	3,400	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,600	400	0	0	1,400
Upper Peoria	550	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	0	0	300
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0
TOTAL UPPER	16,875	430	8,500	700	2,690	1,700	450	1,300	0	0	0	0	0	0	0	0	0	0	32,645	3,880	20	0	7,045
TOTAL LOWER	41,660	115	8,775	3,620	14,425	4,230	3,145	4,020	30	0	0	0	80	0	0	0	0	0	80,100	3,680	450	0	45,835
TOTAL	58,535	545	17,275	4,320	17,115	5,930	3,595	5,320	30	0	0	0	80	0	0	0	0	0	112,745	7,560	470	0	52,880
10 Year Average 1988-97	42,908	1,095	9,160	1,094	8,389	5,437	2,092	577	520	297	9	0	0	0	0	0	0	0	71,595	4,280	184	0	26,125





ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 10/13/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	20	0	0	155
Powerlon Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	930
Spring Lake	500	0	0	0	0	0	0	200	0	0	0	0	50	0	0	0	0	0	750	145	0	0	15,000
Goose Lake	300	0	50	100	400	0	20	0	0	0	0	0	0	0	0	0	0	0	870	0	0	0	50
Rice Lake	2,000	0	0	0	100	0	75	0	0	0	0	0	0	0	0	0	0	0	2,175	25	0	0	1,500
Big Lake	100	0	25	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	155	0	0	0	450
Banner Marsh	25	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	65	490	0	0	100
Duck Creek	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	70	0	0	0
Clear Lake	1,220	0	300	50	400	0	0	20	30	0	0	0	0	0	0	0	0	0	2,020	20	0	0	2,700
Chautauqua	17,700	100	3,500	500	2,070	1,700	1,000	3,000	0	0	0	0	0	0	0	0	0	0	29,570	2,400	0	0	6,000
Quiver Creek	200	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	205	55	0	0	80
Quiver Lake	25	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	200	0	0	0
Spoon Btms/Emiq.	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Bath Lake	50	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	100
Moscow Lake	350	0	0	20	500	0	0	0	0	0	0	0	0	0	0	0	0	0	870	0	0	0	500
Jack Lake	5,000	10	2,000	1,100	1,500	1,000	500	0	0	0	0	0	0	0	0	0	0	0	11,110	0	80	0	4,300
Grass Lake	4,600	0	500	600	1,000	1,200	400	500	0	0	0	0	0	0	0	0	0	0	8,800	0	50	0	1,500
Anderson Lake	1,200	0	400	0	0	100	200	0	0	0	0	0	30	0	0	0	0	0	1,930	0	0	0	4,000
Snicarte Slough	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0
Ingram Lake	325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	325	0	0	0	1,000
Chain Lake	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	2,300
Stewart Lake	1,500	0	500	1,200	5,000	200	950	100	0	0	0	0	0	0	0	0	0	0	9,450	0	300	0	2,000
Crane Lake	425	0	200	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	725	90	0	0	620
Cuba Island	1,300	0	100	0	600	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0	0
Sanganois	3,000	0	200	0	225	0	0	0	0	0	0	0	0	0	0	0	0	0	3,425	0	0	0	0
Treadway Lake	1,100	0	700	0	2,100	0	0	0	0	0	0	0	0	0	0	0	0	0	3,900	50	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	70	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	270	15	0	0	1,450
Meredosia Lake	50	0	0	0	350	0	0	0	0	0	0	0	0	0	0	0	0	0	400	20	20	0	1,100
Smith Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0
Bath - Beardstown	200	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0
TOTAL LOWER	41,660	115	8,775	3,620	14,425	4,230	3,145	4,020	30	0	0	0	80	0	0	0	0	0	80,100	3,680	450	0	45,835



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 10/13/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	20	0	50	0	20	0	0	0	0	0	0	90	0	0	0	2,225
Arthur Refuge	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125	20	0	35	100
Nauvoo-Ft. Mad.	550	0	0	0	0	200	0	0	0	0	50	0	25	0	0	0	0	0	825	0	0	20	9,250
Ft. Madison-Dallas	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	750
Dallas-Burlington	230	0	0	0	0	150	0	0	0	0	0	0	0	0	0	0	0	0	380	20	0	50	1,320
Turkey Slough	1,300	0	100	0	200	0	100	200	0	0	0	0	0	0	0	0	0	0	1,900	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0
Crystal Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	225
Oquawka Refuge	700	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	25	0	0	200
Oqua.-Keithsburg	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	10	20
Keithsburg Refuge	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
New Boston	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Louisa Refuge	1,200	0	1,400	0	100	0	500	200	0	30	600	0	0	0	0	0	0	0	4,030	1,500	50	0	3,000
Louisa-Muscatine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400
Andalusia Refuge	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	50
TOTAL UPPER	4,270	0	1,600	0	320	350	620	400	50	30	670	0	25	0	0	0	0	0	8,335	1,605	50	115	17,540
TOTAL LOWER	10,685	0	4,145	800	8,800	1,025	60	1,000	50	20	0	0	0	0	0	0	0	0	26,585	655	20	370	16,780
TOTAL	14,955	0	5,745	800	9,120	1,375	680	1,400	100	50	670	0	25	0	0	0	0	0	34,920	2,260	70	485	34,320
10 Year Average 1988-97	28,239	46	8,581	963	3,619	4,024	1,819	24	1,688	543	129	0							49,677	3,565	1,028		16,138





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 10/13/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	3,000	0	600	300	2,000	100	0	0	0	0	0	0	0	0	0	0	0	0	6,000	0	0	0	3,500
Stump Lake	150	0	20	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	180	0	0	0	1,600
Swan Lake	2,100	0	800	500	5,200	0	0	1,000	50	20	0	0	0	0	0	0	0	0	9,670	20	0	300	4,600
Gilbert Lake	70	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	170	25	0	40	25
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	30	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	0	0	0	0
Long Lake	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	30	0	0	0
Dardenne	600	0	1,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,900	0	0	0	0
Cuivre	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Pool	600	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,100	0	0	30	4,250
Batchtown Refuge	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	80	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	1,000	0	800	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	1,825	25	0	0	300
Twin Ponds	1,100	0	0	0	0	400	50	0	0	0	0	0	0	0	0	0	0	0	1,550	150	0	0	0
Clarksville Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,120	
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	1,500	0	25	0	1,500	500	0	0	0	0	0	0	0	0	0	0	0	0	3,525	325	20	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225	0
Shanks Area	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meyer-Keokuk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160
TOTAL LOWER	10,685	0	4,145	800	8,800	1,025	60	1,000	50	20	0	0	0	0	0	0	0	0	26,585	655	20	370	16,780



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 10/20/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	W/G	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	300	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	125	0	0	0
Depue, Spring	3,200	70	600	0	0	50	10	0	0	0	0	0	0	0	0	0	0	0	3,930	130	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0
Goose Lake	4,000	50	3,000	400	2,500	0	1,000	0	50	0	0	0	0	0	0	0	0	0	11,000	840	0	0	400
Senachwine Lake	1,800	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	1,820	0	0	0	0
Swan Lake	600	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Billsbach Lake	600	0	25	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	650	50	0	0	0
Weis Lake	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	400	0	0	0
Sparland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Wrightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	300	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	9,800	300	1,200	0	2,300	0	800	0	0	0	0	0	0	0	0	0	0	0	14,400	520	0	0	500
Goose Lake	2,100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,100	0	0	0	3,600
Upper Peoria	1,200	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,400	0	0	0	1,300
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	300
TOTAL UPPER	24,150	640	4,945	400	4,800	50	1,855	0	50	0	0	0	0	0	0	0	0	0	36,890	2,095	0	0	6,155
TOTAL LOWER	61,360	430	16,745	2,045	17,220	6,845	3,400	2,150	0	0	50	0	430	0	0	0	0	0	110,675	4,655	0	2,200	58,770
TOTAL	85,510	1,070	21,690	2,445	22,020	6,895	5,255	2,150	50	0	50	0	430	0	0	0	0	0	147,565	6,750	0	2,200	64,925
10 Year Average 1988-97	98,698	2,043	18,245	1,118	11,412	10,021	6,410	2,200	1,219	1,086	350	32							153,116	7,875	914		53,635





ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 10/20/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS				
																			CG	SG	PEL	COOT	
Pekin Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	30	0	0	300
Powerton Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	2,300
Spring Lake	150	0	0	0	0	0	0	50	0	0	0	0	70	0	0	0	0	0	270	125	0	0	19,500
Goose Lake	1,000	0	1,000	250	1,200	0	0	0	0	0	0	0	0	0	0	0	0	0	3,450	150	0	0	0
Rice Lake	1,200	0	200	0	400	0	0	0	0	0	0	0	0	0	0	0	0	0	1,800	0	0	0	800
Big Lake	2,025	0	0	0	0	1,000	0	0	0	0	0	0	0	0	0	0	0	0	3,025	0	0	0	500
Banner Marsh	400	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	450	770	0	0	0
Duck Creek	450	0	50	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	520	900	0	0	0
Clear Lake	2,000	0	1,500	0	1,800	1,000	0	0	0	0	0	0	0	0	0	0	0	0	6,300	80	0	0	900
Chautauqua	20,800	400	6,000	1,650	5,500	3,500	3,000	2,100	0	0	50	0	300	0	0	0	0	0	43,300	2,300	0	0	8,000
Quiver Creek	1,200	0	150	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	1,370	0	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spoon Bltms/Emiq.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0
Bath Lake	200	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	0	0	0	50
Moscow Lake	800	0	400	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	1,700	0	0	0	100
Jack Lake	2,600	20	1,000	0	400	200	300	0	0	0	0	0	0	0	0	0	0	0	4,520	0	0	400	7,500
Grass Lake	1,100	0	500	0	100	500	0	0	0	0	0	0	0	0	0	0	0	0	2,200	0	0	50	2,000
Anderson Lake	4,000	10	1,000	25	400	0	50	0	0	0	0	0	40	0	0	0	0	0	5,525	0	0	0	2,700
Snicarte Slough	200	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	220	20	0	0	50
Ingram Lake	1,400	0	100	20	200	0	0	0	0	0	0	0	0	0	0	0	0	0	1,720	40	0	900	0
Chain Lake	2,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,300	0	0	0	400
Stewart Lake	4,500	0	2,500	0	4,400	0	0	0	0	0	0	0	0	0	0	0	0	0	11,400	0	0	700	4,000
Crane Lake	1,500	0	400	0	550	100	50	0	0	0	0	0	0	0	0	0	0	0	2,600	0	0	150	3,900
Cuba Island	6,500	0	500	0	1,300	500	0	0	0	0	0	0	0	0	0	0	0	0	8,800	0	0	0	300
Sanganolis	1,850	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,900	0	0	0	20
Treadway Lake	800	0	0	0	50	25	0	0	0	0	0	0	0	0	0	0	0	0	875	100	0	0	100
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	3,300	0	1,300	100	400	0	0	0	0	0	0	0	0	0	0	0	0	0	5,100	0	0	0	1,600
Meredosia Lake	700	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	725	100	0	0	3,600
Smith Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Little Creek	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Bath-Beardstown	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	100
TOTAL LOWER	61,360	430	16,745	2,045	17,220	6,845	3,400	2,150	0	0	50	0	430	0	0	0	0	0	110,675	4,655	0	2,200	58,770





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY

Date: 10/20/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	5,400
Arthur Refuge	500	0	50	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	600	40	0	0	300
Nauvoo-Ft. Mad.	150	0	0	0	0	0	100	0	0	0	300	0	0	0	0	0	0	0	550	0	0	0	11,000
Ft. Madison-Dallas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0
Turkey Slough	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	10	0	0	200
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500
Oqua.-Keithsburg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	700
Keithsburg Refuge	80	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	100	10	0	0	150
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0
Louisa Refuge	2,800	0	500	0	500	0	500	0	0	0	200	0	0	0	0	0	0	0	4,500	2,150	0	0	3,000
Louisa-Muscatine	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Andalusia Refuge	75	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	85	0	0	0	400
TOTAL UPPER	3,750	0	550	0	570	0	600	10	0	0	500	0	0	0	0	0	0	0	5,960	2,410	0	825	22,100
TOTAL LOWER	39,170	20	12,605	3,000	17,100	1,900	4,400	700	0	0	0	0	0	0	0	0	0	0	78,895	1,955	100	2,160	10,550
TOTAL	42,920	20	13,155	3,000	17,670	1,900	5,000	710	0	0	500	0	0	0	0	0	0	0	84,875	4,365	100	2,985	32,650
10 Year Average 1988-97	54,993	175	17,928	1,118	7,053	11,017	3,752	1,416	5,454	1,086	4,066	148							109,790	4,983	2,130		38,146



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 10/20/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	5,000	0	500	0	1,500	500	1,000	0	0	0	0	0	0	0	0	0	0	0	8,500	0	0	0	2,000
Stump Lake	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	400
Swan Lake	6,300	0	500	2,500	7,000	500	1,000	0	0	0	0	0	0	0	0	0	0	0	17,800	200	0	940	0
Gilbert Lake	3,000	0	600	500	1,000	100	0	0	0	0	0	0	0	0	0	0	0	0	5,200	500	0	900	0
Grafton-Alton	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Marais Temps C.	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	25	0	0	0
Long Lake	3,000	0	50	0	800	200	0	0	0	0	0	0	0	0	0	0	0	0	4,050	0	0	0	0
Dardenne	7,000	0	8,000	0	2,500	500	1,500	500	0	0	0	0	0	0	0	0	0	0	20,000	0	0	0	0
Cuivre	900	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	0	0	0
Batchtown Pool	400	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	450	0	0	300	4,000
Batchtown Refuge	500	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	600	150	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	6,150	20	2,000	0	1,600	100	400	0	0	0	0	0	0	0	0	0	0	0	10,270	80	0	0	2,500
Twin Ponds	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	200	100	0	0
Clarksville Refuge	400	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	20	1,050
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	2,050	0	300	0	2,500	0	500	200	0	0	0	0	0	0	0	0	0	0	5,550	800	0	0	500
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	1,100	0	400	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	1,600	0	0	0	0
Saverton-Hannibal	25	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
Gardner Refuge	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Meyer-Keokuk	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0	0	100
TOTAL LOWER	39,170	20	12,605	3,000	17,100	1,900	4,400	700	0	0	0	0	0	0	0	0	0	0	78,895	1,955	100	2,160	10,550





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 10/26/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	300	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	20	0	0	0
Depue, Spring	1,000	50	1,100	0	100	300	0	0	0	0	0	0	0	0	0	0	0	0	2,550	400	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	11,100	600	6,500	0	5,000	600	0	200	0	0	0	0	0	0	0	0	0	0	24,000	700	200	0	500
Senachwine Lake	1,500	0	0	0	0	0	600	0	0	0	0	0	0	0	0	0	0	0	2,100	0	0	0	0
Swan Lake	1,700	0	1,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,200	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Billsbach Lake	500	100	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	800	25	0	0	900
Weis Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	125	20	0	0
Spartland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	4,000	200	500	0	0	500	1,100	50	0	0	0	0	0	0	0	0	0	0	6,350	0	0	0	0
Babbs Slough	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	10,500	500	1,000	0	2,000	500	1,200	0	0	0	0	0	300	0	0	0	0	0	16,000	0	0	0	0
Goose Lake	4,100	0	500	0	300	500	1,000	0	0	0	0	0	0	0	0	0	0	0	6,400	0	0	25	0
Upper Peoria	900	25	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,225	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0
TOTAL UPPER	35,825	1,495	11,400	0	7,600	2,400	3,900	250	0	0	0	0	300	0	0	0	0	0	63,170	1,320	220	25	1,400
TOTAL LOWER	79,995	1,440	14,220	100	22,700	9,500	6,075	1,650	775	1,000	350	0	1,175	0	0	0	0	0	138,980	5,605	25	710	33,950
TOTAL	115,820	2,935	25,620	100	30,300	11,900	9,975	1,900	775	1,000	350	0	1,475	0	0	0	0	0	202,150	6,925	245	735	35,350
10 Year Average 1988-97	98,698	2,043	18,245	1,118	11,412	10,021	6,410	2,200	1,219	1,086	350	32							153,116	7,875	914		53,635



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 10/26/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	100	0	0	25	0	0	0	0	0	125	0	0	0	0
Spring Lake	30	0	0	0	0	0	0	0	50	0	0	0	300	0	0	0	0	0	380	0	0	0	18,200
Goose Lake	4,000	400	2,000	0	4,000	1,000	500	0	0	0	0	0	0	0	0	0	0	0	11,900	0	0	0	0
Rice Lake	2,300	0	400	0	200	0	200	50	0	0	0	0	100	0	0	0	0	0	3,250	0	0	0	1,600
Big Lake	3,000	0	300	0	1,100	1,000	0	100	0	0	0	0	0	0	0	0	0	0	5,500	20	0	0	1,000
Banner Marsh	1,400	0	550	0	50	0	0	0	0	0	0	0	150	0	0	0	0	0	2,150	200	0	0	2,000
Duck Creek	9,800	100	1,550	0	0	1,600	700	300	0	0	0	0	0	0	0	0	0	0	14,050	2,020	25	0	300
Clear Lake	1,700	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	1,725	20	0	230	200
Chautauqua	33,350	500	5,400	100	9,200	2,650	2,450	1,200	200	0	300	0	600	0	0	0	0	0	55,950	3,270	0	120	5,150
Quiver Creek	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	0
Quiver Lake	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Spoon Blms/Emiq.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bath Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Moscow Lake	600	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	640	0	0	0	300
Jack Lake	11,400	100	2,000	0	3,100	1,500	2,000	0	400	200	0	0	0	0	0	0	0	0	20,700	30	0	0	1,500
Grass Lake	1,800	0	0	0	3,400	500	0	0	0	0	0	0	0	0	0	0	0	0	5,700	0	0	0	500
Anderson Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	
Snicarte Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ingram Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chain Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Stewart Lake	1,000	0	0	0	800	100	0	0	0	200	0	0	0	0	0	0	0	0	2,100	0	0	0	1,100
Crane Lake	1,000	0	0	0	0	0	0	0	100	500	50	0	0	0	0	0	0	0	1,650	0	0	0	0
Cuba Island	6,000	300	2,000	0	500	1,000	200	0	0	0	0	0	0	0	0	0	0	0	10,000	0	0	0	800
Sanganois	150	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170	0	0	0	0
Treadway Lake	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	1,200	0	0	0	0	50	25	0	0	0	0	0	0	0	0	0	0	0	1,275	0	0	50	0
Meredosia Lake	825	0	0	0	25	100	0	0	0	0	0	0	0	0	0	0	0	0	950	0	0	310	300
Smith Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bath - Beardstown	100	0	0	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0
TOTAL LOWER	79,995	1,440	14,220	100	22,700	9,500	6,075	1,650	775	1,000	350	0	1,175	0	0	0	0	0	138,980	5,605	25	710	33,950





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY

Date: 10/26/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500
Arthur Refuge	450	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	470	40	0	20	400
Nauvoo-Ft. Mad.	1,100	0	0	0	500	0	0	0	1,200	200	1,000	0	500	0	0	0	0	0	4,500	0	0	360	2,900
Ft. Madison-Dallas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	300	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	550
Oquawka Refuge	1,000	0	700	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	1,800	0	0	0	0
Oqua.-Keithsburg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	50	0
Keithsburg Refuge	1,300	0	0	0	0	200	25	0	0	0	0	0	0	0	0	0	0	0	1,525	0	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	600	0	0	0	1,800	0	100	0	0	0	0	0	0	0	0	0	0	0	2,500	1,350	0	0	900
Louisa-Muscatine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Andalusia Refuge	100	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	0	0	0	200
TOTAL UPPER	4,850	0	720	0	2,320	500	125	0	1,200	200	1,000	0	500	0	0	0	0	0	11,415	1,420	0	430	5,475
TOTAL LOWER	26,590	80	9,600	0	3,720	5,225	1,550	0	0	200	145	0	0	0	0	0	0	0	47,110	390	50	650	5,165
TOTAL	31,440	80	10,320	0	6,040	5,725	1,675	0	1,200	400	1,145	0	500	0	0	0	0	0	58,525	1,810	50	1,080	10,640
10 Year Average 1988-97	54,993	175	17,928	1,118	7,053	11,017	3,752	1,416	5,454	1,086	4,066	148							109,790	4,983	2,130		38,146





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 10/26/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	2,000	0	0	0	200	800	0	0	0	0	0	0	0	0	0	0	0	0	3,000	0	0	0	2,000
Stump Lake	1,000	10	0	0	20	700	0	0	0	0	0	0	0	0	0	0	0	0	1,730	0	0	0	1,100
Swan Lake	3,400	50	500	0	1,600	2,000	1,000	0	0	200	75	0	0	0	0	0	0	0	8,825	0	0	600	1,500
Gilbert Lake	500	0	0	0	1,200	0	0	0	0	0	0	0	0	0	0	0	0	0	1,700	120	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Long Lake	2,500	0	500	0	0	300	0	0	0	0	0	0	0	0	0	0	0	0	3,300	0	0	0	0
Dardenne	6,400	0	6,000	0	100	400	0	0	0	0	70	0	0	0	0	0	0	0	12,970	0	0	0	0
Cuivre	1,400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,400	0	0	0	500
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0
Batchtown Refuge	700	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	800	0	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	5,400	0	1,700	0	500	400	500	0	0	0	0	0	0	0	0	0	0	0	8,500	100	50	0	0
Twin Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0
Clarksville Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	1,900	0	400	0	0	125	50	0	0	0	0	0	0	0	0	0	0	0	2,475	0	0	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	1,300	20	500	0	0	500	0	0	0	0	0	0	0	0	0	0	0	0	2,320	0	0	0	0
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Refuge	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Meyer-Keokuk	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	10	0	0	65
TOTAL LOWER	26,590	80	9,600	0	3,720	5,225	1,550	0	0	200	145	0	0	0	0	0	0	0	47,110	390	50	650	5,165



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 11/04/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	425	20	0	0	125	0	25	0	0	0	0	0	0	0	0	0	0	0	595	0	0	0	0
Depue, Spring	920	0	0	0	800	200	500	50	0	0	0	0	0	0	0	0	0	0	2,470	50	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	0
Goose Lake	13,750	600	800	0	4,600	400	600	0	0	0	0	0	100	0	0	0	0	0	20,850	1,000	200	0	2,000
Senachwine Lake	6,625	750	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,575	0	0	0	200
Swan Lake	2,200	500	2,700	0	1,500	50	0	0	0	0	0	0	0	0	0	0	0	0	6,950	20	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sparland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	1,000	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,300	0	0	0	0
Babbs Slough	1,400	320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,720	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	12,900	1,400	3,000	0	2,400	0	2,000	0	0	0	0	0	0	0	0	0	0	0	21,700	0	0	0	500
Goose Lake	9,400	1,000	500	0	500	0	1,200	0	100	800	300	0	0	0	0	0	0	0	13,800	75	0	0	0
Upper Peoria	5,000	1,000	500	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	6,700	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	53,690	5,890	7,700	0	10,125	650	4,325	50	100	800	300	0	100	0	0	0	0	0	83,730	1,145	200	0	2,700
TOTAL LOWER	98,630	3,455	11,355	0	18,600	4,800	14,645	2,300	1,460	5,665	600	0	1,050	0	0	0	0	35	162,595	5,245	400	605	38,725
TOTAL	152,320	9,345	19,055	0	28,725	5,450	18,970	2,350	1,560	6,465	900	0	1,150	0	0	0	0	35	246,325	6,390	600	605	41,425
10 Year Average 1988-97	255,007	6,998	16,331	408	12,820	8,949	11,818	2,495	6,711	5,270	2,106	391							331,029	13,244	2,241		28,485





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 11/04/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0	0	0	0	200	0	0	0	900
Spring Lake	150	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	200	50	0	0	8,800
Goose Lake	1,000	50	0	0	500	200	0	0	0	0	0	0	0	0	0	0	0	0	1,750	25	0	0	0
Rice Lake	5,900	100	800	0	500	100	1,000	0	0	0	0	0	0	0	0	0	0	0	8,400	0	0	0	400
Big Lake	1,100	20	0	0	0	0	0	0	35	50	0	0	0	0	0	0	0	0	1,205	0	0	0	800
Banner Marsh	4,100	10	200	0	0	0	300	0	0	0	0	0	0	0	0	0	0	0	4,610	190	0	0	400
Duck Creek	7,300	80	400	0	0	100	500	0	25	0	0	0	0	0	0	0	0	0	8,405	480	0	0	100
Clear Lake	2,500	45	20	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	2,590	20	0	80	400
Chautauqua	43,000	1,200	4,100	0	8,500	1,800	4,500	2,000	400	1,000	400	0	800	0	0	0	0	0	67,700	4,300	400	150	12,800
Quiver Creek	200	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	225	0	0	0	25
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Spoon Btms/Emiq.	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	15	10	0	0	0
Bath Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	
Moscow Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	600
Jack Lake	12,000	1,000	2,000	0	500	600	2,000	100	400	2,000	0	0	200	0	0	0	0	0	20,800	0	0	0	1,200
Grass Lake	5,500	200	2,200	0	5,000	300	3,000	200	0	800	0	0	0	0	0	0	0	0	17,200	0	0	0	1,500
Anderson Lake	300	0	25	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	350	0	0	0	2,800
Snicarte Slough	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0
Ingram Lake	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Chain Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	1,600	
Stewart Lake	25	0	0	0	100	300	30	0	0	200	0	0	0	0	0	0	0	0	655	0	0	20	0
Crane Lake	4,400	500	500	0	500	1,000	0	0	0	1,400	0	0	0	0	0	0	0	0	8,300	0	0	20	800
Cuba Island	7,000	250	600	0	800	400	2,700	0	0	0	0	0	0	0	0	0	0	25	11,775	0	0	0	200
Sanganolis	1,500	0	400	0	0	0	300	0	0	0	0	0	0	0	0	0	0	10	2,210	0	0	0	0
Treadway Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	1,100	0	100	0	200	0	220	0	0	0	0	0	0	0	0	0	0	0	1,620	0	0	110	3,000
Meredosia Lake	900	0	0	0	300	0	0	0	600	200	0	0	0	0	0	0	0	0	2,000	30	0	200	2,100
Smith Lake	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	0	0	0
Little Creek	80	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
Bath - Beardstown	50	0	0	0	1,700	0	0	0	0	0	0	0	0	0	0	0	0	0	1,750	0	0	25	0
TOTAL LOWER	98,630	3,455	11,355	0	18,600	4,800	14,645	2,300	1,460	5,665	600	0	1,050	0	0	0	0	35	162,595	5,245	400	605	38,725



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY

Date: 11/04/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	2,800	500	2,250	200	0	0	0	0	0	0	5,750	0	0	0	600
Arthur Refuge	300	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350	300	0	10	400
Nauvoo-Ft. Mad.	50	0	0	0	100	0	0	0	600	100	300	0	0	0	0	0	0	0	1,150	0	0	0	2,100
Ft. Madison-Dallas	400	0	0	0	0	0	0	0	425	0	0	0	0	0	0	0	0	0	825	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	150	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	550
Oquawka Refuge	1,100	0	400	0	500	0	100	0	0	0	0	0	0	0	0	0	0	0	2,100	0	0	0	0
Oqua.-Keithsburg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Keithsburg Refuge	5,500	0	700	0	0	400	300	0	0	0	0	0	0	0	0	0	0	0	6,900	230	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	3,550	100	800	0	150	0	0	0	300	50	200	0	0	0	0	0	0	0	5,150	1,000	0	0	3,900
Louisa-Muscatine	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Andalusia Refuge	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	900
TOTAL UPPER	11,550	100	2,025	0	750	400	400	0	4,125	650	2,750	200	0	0	0	0	0	0	22,950	1,540	0	10	8,450
TOTAL LOWER	57,050	410	25,575	0	16,900	3,750	4,000	50	1,895	5,045	500	0	195	0	0	0	0	0	115,370	1,385	525	125	7,020
TOTAL	68,600	510	27,600	0	17,650	4,150	4,400	50	6,020	5,695	3,250	200	195	0	0	0	0	0	138,320	2,925	525	135	15,470
10 Year Average 1988-97	130,847	1,095	23,868	471	7,167	9,494	9,242	1,560	28,994	8,233	16,038	1,256							240,615	7,159	7,289		18,182



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY

Date: 11/04/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	1,000	0	0	0	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	3,000	320	0	0	700
Slump Lake	1,500	0	250	0	0	250	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0	600
Swan Lake	7,970	200	2,050	0	2,000	0	500	0	1,800	5,000	500	0	150	0	0	0	0	0	20,170	60	500	90	3,000
Gilbert Lake	2,000	0	3,000	0	5,000	1,000	0	0	0	0	0	0	0	0	0	0	0	0	11,000	250	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	1,500	0	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,900	0	0	0	0
Long Lake	3,000	0	500	0	1,500	500	0	0	0	0	0	0	0	0	0	0	0	0	5,500	0	0	0	0
Dardenne	10,600	0	10,400	0	500	500	2,000	0	50	0	0	0	25	0	0	0	0	0	24,075	0	0	0	2,000
Cuivre	4,000	0	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000	0	0	0	0
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0
Batchtown Refuge	1,300	0	0	0	0	0	0	0	25	25	0	0	0	0	0	0	0	0	1,350	10	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	13,400	200	4,500	0	4,000	1,000	700	0	0	0	0	0	20	0	0	0	0	0	23,820	200	0	0	0
Twin Ponds	450	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	25	0	0	20
Clarksville Refuge	200	0	25	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	245	0	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	5,000	0	1,000	0	1,500	0	500	0	0	0	0	0	0	0	0	0	0	0	8,000	500	25	0	400
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	4,700	0	2,400	0	400	500	300	50	0	0	0	0	0	0	0	0	0	0	8,350	0	0	0	300
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	20	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meyer-Keokuk	430	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	440	20	0	0	0
TOTAL LOWER	57,050	410	25,575	0	16,900	3,750	4,000	50	1,895	5,045	500	0	195	0	0	0	0	0	115,370	1,385	525	125	7,020





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 11/12/93

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	2,000	50	500	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	3,050	50	0	0	0
Depue, Spring	2,500	200	500	0	300	0	0	0	350	200	0	0	0	0	0	0	0	0	4,050	300	0	0	220
Coleman Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Bureau Ponds	1,100	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,120	0	0	0	0
Goose Lake	18,000	1,000	500	0	2,000	500	2,000	0	4,000	1,100	0	0	0	0	0	0	0	0	29,100	0	0	0	0
Senackwine Lake	5,700	600	0	0	200	0	0	0	0	0	0	0	200	0	0	0	0	0	6,700	0	0	0	0
Swan Lake	1,000	200	1,000	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	2,300	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Weis Lake	500	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600	100	0	0	0
Sparland	600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	0	0	0
Wightman Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	900	100	0	0	0	0	0	0	0	500	0	0	0	0	0	0	0	0	1,500	0	0	0	0
Babbs Slough	1,600	200	0	0	50	0	400	0	100	300	0	0	120	0	0	0	0	0	2,770	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	25,900	3,700	1,850	0	500	0	900	900	0	0	0	0	0	0	0	0	0	0	33,750	600	500	0	1,200
Goose Lake	37,300	2,550	5,000	0	800	0	1,500	500	2,500	2,500	500	50	0	0	0	0	0	0	53,200	700	0	0	800
Upper Peoria	8,000	1,000	500	0	0	0	500	0	900	0	0	0	50	0	0	0	0	0	10,950	0	0	0	1,100
Lower Peoria	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700	200	0	0	0
TOTAL UPPER	106,050	9,720	9,850	0	4,350	500	5,300	1,400	7,850	4,600	500	50	470	0	0	0	0	0	150,640	1,950	500	0	3,420
TOTAL LOWER	197,050	6,825	25,720	0	18,850	2,700	30,225	9,285	24,375	24,985	4,800	1,300	2,390	0	775	0	0	25	349,305	7,260	50	450	33,100
TOTAL	303,100	16,545	35,570	0	23,200	3,200	35,525	10,685	32,225	29,585	5,300	1,350	2,860	0	775	0	0	25	499,945	9,210	550	450	36,520
10 Year Average 1988-97	281,801	7,471	12,993	51	6,369	6,088	14,537	1,473	4,528	6,869	1,387	201							345,279	13,248	1,441		18,240



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 11/12/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	300	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	1,300	700	0	0	0	0	0	0	0	0	2,000	0	0	0	400
Spring Lake	850	0	0	0	0	0	0	100	50	25	0	0	100	0	0	0	0	0	1,125	30	0	0	6,700
Goose Lake	4,500	400	0	0	900	400	500	200	600	3,000	0	0	0	0	0	0	0	0	10,500	800	0	0	0
Rice Lake	7,700	200	400	0	0	0	900	50	50	600	0	0	200	0	0	0	0	0	10,100	100	0	0	1,800
Big Lake	8,000	400	300	0	0	0	700	0	1,000	1,300	400	0	0	0	0	0	0	0	12,100	600	0	0	3,700
Banner Marsh	10,900	225	550	0	300	0	900	0	25	300	0	0	50	0	0	0	0	0	13,250	650	0	0	2,100
Duck Creek	16,100	500	2,300	0	400	600	1,600	0	1,000	2,400	1,100	0	500	0	125	0	0	0	26,625	400	0	0	0
Clear Lake	2,100	100	100	0	700	0	100	0	600	1,100	100	0	0	0	0	0	0	25	4,925	200	0	350	1,100
Chautauqua	64,000	1,500	11,350	0	5,500	800	17,200	5,310	4,850	5,000	1,600	800	1,000	0	300	0	0	0	119,210	3,700	0	100	6,850
Quiver Creek	180	0	10	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	240	10	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	
Spoon Btms/Emiq.	400	0	50	0	0	200	100	0	0	20	0	0	0	0	0	0	0	0	770	10	0	0	0
Bath Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	
Moscow Lake	600	0	0	0	0	0	0	25	100	400	0	0	40	0	0	0	0	0	1,165	25	0	0	500
Jack Lake	15,000	1,000	3,000	0	700	200	2,000	500	6,500	3,500	1,000	500	300	0	0	0	0	0	34,200	0	0	0	1,100
Grass Lake	7,500	500	1,000	0	5,000	300	600	100	0	0	0	0	0	0	0	0	0	0	15,000	0	0	0	3,000
Anderson Lake	120	0	10	0	0	0	0	0	100	330	0	0	0	0	50	0	0	0	610	0	0	0	2,400
Snicarte Slough	0	0	100	0	25	0	500	0	0	0	0	0	0	0	0	0	0	0	625	300	0	0	0
Ingram Lake	200	0	0	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	500
Chain Lake	0	0	0	0	100	0	25	0	0	0	0	0	0	0	0	0	0	0	125	0	0	0	0
Stewart Lake	5,125	0	200	0	0	0	700	0	0	0	0	0	0	0	0	0	0	0	6,025	20	0	0	0
Crane Lake	7,700	400	700	0	400	0	1,000	100	5,500	2,000	0	0	100	0	300	0	0	0	18,200	0	0	0	700
Cuba Island	12,500	300	1,500	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	14,400	0	0	0	0
Sanganois	7,100	600	1,000	0	1,000	0	1,000	0	100	1,000	100	0	0	0	0	0	0	0	11,900	40	0	0	0
Treadway Lake	275	0	50	0	25	0	50	0	0	110	0	0	0	0	0	0	0	0	510	0	0	0	50
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Big Lake	14,000	100	2,200	0	3,000	200	1,000	1,500	2,000	900	0	0	100	0	0	0	0	0	25,000	0	0	0	0
Meredosia Lake	7,000	600	900	0	0	0	1,100	300	100	1,100	0	0	0	0	0	0	0	0	11,100	50	0	0	1,500
Smith Lake	1,600	0	0	0	0	0	0	0	500	1,200	500	0	0	0	0	0	0	0	3,800	0	0	0	0
Little Creek	3,400	0	0	0	0	0	200	1,000	0	0	0	0	0	0	0	0	0	0	4,600	0	0	0	0
Bath-Beardstown	100	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	0	0	0
Meredosia-Godar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	50	0	0
TOTAL LOWER	197,050	6,825	25,720	0	18,850	2,700	30,225	9,285	24,375	24,985	4,800	1,300	2,390	0	775	0	0	25	349,305	7,260	50	450	33,100





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

## UPPER MISSISSIPPI RIVER VALLEY

Date: 11/12/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	6,000	2,000	14,000	2,000	1,700	0	150	0	0	0	25,850	0	0	0	0
Arthur Refuge	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250	10	0	5	50
Nauvoo-Ft. Mad.	50	0	100	0	300	0	0	0	5,000	1,500	4,000	0	1,000	0	200	0	0	0	12,150	0	0	0	2,500
Fl.Madison-Dallas	800	0	0	0	0	0	0	0	6,000	1,300	1,800	800	0	0	0	0	0	0	10,700	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	100	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	150	0	0	0	1,100
Oquawka Refuge	2,500	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,000	0	0	0	0
Oqua.-Keithsburg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Keithsburg Refuge	6,500	0	0	0	800	0	1,200	0	0	0	0	0	0	0	0	0	0	0	8,500	200	0	0	1,500
New Boston	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0
Louisa Refuge	19,000	500	1,000	0	0	0	2,000	500	0	0	0	0	0	0	0	0	0	0	23,000	1,400	200	0	2,000
Louisa-Muscatine	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Muscatine-Moline	10	0	0	0	0	0	0	0	100	20	0	0	0	0	0	0	0	0	130	0	0	0	0
Andalusia Refuge	1,600	0	100	0	0	0	0	0	500	200	300	0	0	0	0	0	0	0	2,700	0	0	0	400
TOTAL UPPER	31,310	500	1,700	0	1,100	0	3,200	500	17,750	5,070	20,100	2,800	2,700	0	350	0	0	0	87,080	1,610	200	5	7,550
TOTAL LOWER	92,725	335	36,425	0	6,100	4,500	12,600	4,400	7,820	8,120	2,000	0	500	0	100	0	0	0	175,625	3,795	5,000	330	5,800
TOTAL	124,035	835	38,125	0	7,200	4,500	15,800	4,900	25,570	13,190	22,100	2,800	3,200	0	450	0	0	0	262,705	5,405	5,200	335	13,350
10 Year Average 1988-97	135,296	1,486	16,369	31	6,033	7,069	9,602	574	22,358	9,213	21,643	944							233,609	8,384	7,865		9,045



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

## LOWER MISSISSIPPI RIVER VALLEY

Date: 11/12/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS		CG	SG	PEL	COOT
Godar	5,000	0	400	0	1,200	0	600	0	300	500	0	0	300	0	0	0	0	0	8,300	0	0	0	1,400	
Stump Lake	3,200	25	400	0	1,500	0	0	600	0	0	0	0	0	0	0	0	0	0	5,725	0	0	0	675	
Swan Lake	12,600	100	2,800	0	1,100	0	500	1,500	7,000	6,000	2,000	0	200	0	100	0	0	0	33,900	1,440	5,000	200	0	
Gilbert Lake	1,200	0	100	0	900	0	0	0	0	0	0	0	0	0	0	0	0	0	2,200	275	0	0	0	
Grafton-Alton	820	0	0	0	0	0	0	0	400	0	0	0	0	0	0	0	0	0	1,220	0	0	0	0	
Marais Temps C.	2,500	0	2,600	0	0	0	1,000	0	0	20	0	0	0	0	0	0	0	0	6,120	0	0	0	0	
Long Lake	4,000	0	500	0	0	1,000	500	0	0	0	0	0	0	0	0	0	0	0	6,000	10	0	0	0	
Dardenne	11,000	200	10,000	0	0	2,000	3,000	0	0	0	0	0	0	0	0	0	0	0	26,200	0	0	0	600	
Cuivre	5,000	0	4,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,000	0	0	0	0	
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	400	
Batchtown Refuge	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	50	0	0	500	
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cannon Refuge	17,900	0	10,600	0	500	1,500	3,100	0	0	200	0	0	0	0	0	0	0	0	33,800	200	0	0	1,700	
Twin Ponds	75	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	
Clarksville Refuge	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0	
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Delair Refuge	10,000	0	1,200	0	0	0	2,500	2,000	0	700	0	0	0	0	0	0	0	0	16,400	1,800	0	110	0	
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	
Shanks Area	7,500	0	3,300	0	800	0	1,400	0	100	400	0	0	0	0	0	0	0	0	13,500	20	0	0	500	
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gardner Club	0	10	0	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0	210	0	0	0	0	
Hannibal-Quincy	700	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	0	0	0	
Quincy-Meyer	30	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	50	0	0	0	0	
Gardner Refuge	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0	0	
Meyer-Keokuk	8,600	0	200	0	100	0	0	300	0	100	0	0	0	0	0	0	0	0	9,300	0	0	0	0	
TOTAL LOWER	92,725	335	36,425	0	6,100	4,500	12,600	4,400	7,820	8,120	2,000	0	500	0	100	0	0	0	175,625	3,795	5,000	330	5,800	





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 11/17/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Depue, Spring	1,100	100	0	0	325	0	0	0	0	0	0	0	0	0	0	0	0	0	1,525	100	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	40	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Goose Lake	53,500	5,000	0	0	3,000	0	1,500	0	0	0	0	0	1,800	0	0	0	0	0	64,800	5,000	500	0	0
Senachwine Lake	8,000	500	0	0	300	0	500	0	0	0	0	0	0	0	0	0	0	0	9,300	200	0	0	0
Swan Lake	1,550	0	100	0	800	0	0	0	0	0	0	0	0	0	0	0	0	0	2,450	0	0	0	0
Sawmill Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Billsbach Lake	650	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700	0	0	0	0
Weis Lake	800	0	0	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	1,100	20	0	0	0
Spartan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	5,400	600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,000	0	0	0	0
Babbs Slough	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	17,000	1,000	0	0	800	0	1,200	0	0	0	0	0	0	0	0	0	0	0	20,000	0	0	0	0
Goose Lake	28,300	1,500	300	0	1,600	0	1,800	0	0	900	0	0	900	0	0	0	0	0	35,300	700	200	0	0
Upper Peoria	3,500	500	400	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	4,900	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0
TOTAL UPPER	120,090	9,260	800	0	7,125	0	5,500	0	0	900	0	0	2,700	0	0	0	0	0	146,375	6,050	700	0	0
TOTAL LOWER	207,535	6,380	8,550	0	28,450	1,000	24,600	7,050	9,200	8,245	1,250	0	6,045	0	50	0	0	0	308,355	2,910	100	250	6,330
TOTAL	327,625	15,640	9,350	0	35,575	1,000	30,100	7,050	9,200	9,145	1,250	0	8,745	0	50	0	0	0	454,730	8,960	800	250	6,330
10 Year Average 1988-97	272,364	8,671	10,443	97	4,147	6,168	8,167	817	6,686	6,674	2,193	439							329,448	17,136	2,984		13,074





ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY Date: 11/17/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	200	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spring Lake	1,600	0	0	0	0	0	0	50	100	0	0	0	200	0	0	0	0	0	1,950	30	0	0	1,500
Goose Lake	700	0	0	0	400	0	700	0	0	0	0	0	0	0	0	0	0	0	1,800	0	0	0	30
Rice Lake	9,500	400	300	0	500	0	1,000	0	200	400	0	0	0	0	0	0	0	0	12,300	0	0	0	200
Big Lake	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	300
Banner Marsh	12,000	200	400	0	500	100	600	0	0	500	0	0	25	0	0	0	0	0	14,325	180	0	0	500
Duck Creek	19,300	700	0	0	200	0	4,200	0	500	0	0	0	300	0	0	0	0	0	25,200	700	0	0	0
Clear Lake	2,000	200	0	0	300	0	1,100	0	0	0	0	0	0	0	0	0	0	0	3,600	0	0	250	0
Chautauqua	84,200	2,700	5,000	0	17,000	900	9,500	6,500	4,500	2,000	800	0	4,000	0	50	0	0	0	137,150	1,250	100	0	1,500
Quiver Creek	680	20	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	725	0	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Spoon Btms/Emiq.	1,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,300	30	0	0	0
Bath Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
Moscow Lake	2,120	0	0	0	400	0	500	0	0	0	0	0	0	0	0	0	0	0	3,020	0	0	0	400
Jack Lake	7,400	600	0	0	0	0	1,500	300	3,000	5,000	400	0	900	0	0	0	0	0	19,100	0	0	0	0
Grass Lake	5,900	0	0	0	4,500	0	0	0	0	0	0	0	0	0	0	0	0	0	10,400	0	0	0	0
Anderson Lake	500	0	0	0	0	0	0	0	0	20	50	0	100	0	0	0	0	0	670	0	0	0	1,800
Snicarte Slough	525	20	0	0	0	0	1,000	0	0	0	0	0	0	0	0	0	0	0	1,545	0	0	0	0
Ingram Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Chain Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stewart Lake	250	0	50	0	350	0	0	0	0	0	0	0	0	0	0	0	0	0	650	0	0	0	0
Crane Lake	12,500	100	700	0	1,000	0	800	0	0	0	0	0	0	0	0	0	0	0	15,100	20	0	0	0
Cuba Island	16,800	1,300	0	0	800	0	1,200	0	0	0	0	0	0	0	0	0	0	0	20,100	200	0	0	0
Sanganois	3,600	0	0	0	0	0	600	0	0	0	0	0	0	0	0	0	0	0	4,200	0	0	0	0
Treadway Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Big Lake	9,800	0	100	0	500	0	1,700	200	0	200	0	0	0	0	0	0	0	0	12,500	0	0	0	0
Meredosia Lake	12,000	0	1,000	0	2,000	0	200	0	900	100	0	0	120	0	0	0	0	0	16,320	300	0	0	0
Smith Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Little Creek	4,000	100	1,000	0	0	0	0	0	0	0	0	0	400	0	0	0	0	0	5,500	0	0	0	0
Bath-Beardstown	160	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
TOTAL LOWER	207,535	6,380	8,550	0	28,450	1,000	24,600	7,050	9,200	8,245	1,250	0	6,045	0	50	0	0	0	308,355	2,910	100	250	6,330



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY

Date: 11/17/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	2,000	0	4,200	0	0	0	500	0	0	0	6,700	0	0	0	0
Arthur Refuge	450	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	475	50	0	0	0
Nauvoo-Ft. Mad.	0	0	0	0	0	0	0	0	9,000	1,000	8,200	0	0	0	1,900	0	0	0	20,100	0	0	0	0
Ft. Madison-Dallas	500	0	0	0	0	0	0	0	0	0	7,000	500	0	0	0	0	0	0	8,000	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	25
Oquawka Refuge	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	600	0	0	0
Oqua.-Keithsburg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Keithsburg Refuge	14,000	500	1,000	0	0	0	5,000	0	0	500	0	0	0	0	0	0	0	0	21,000	1,500	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	10,700	0	0	0	0	0	2,000	0	1,000	2,000	400	0	0	0	0	0	0	0	16,100	2,100	0	0	0
Louisa-Muscatine	2,030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,030	0	0	0	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Andalusia Refuge	1,100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,100	0	0	0	0
TOTAL UPPER	30,795	500	1,000	0	0	0	7,025	0	12,000	3,500	19,800	500	0	0	2,400	0	0	0	77,520	4,270	0	0	25
TOTAL LOWER	95,810	2,500	38,275	0	14,600	1,100	10,300	700	5,200	4,000	0	0	200	0	0	0	0	0	172,685	2,415	8,550	200	1,500
TOTAL	126,605	3,000	39,275	0	14,600	1,100	17,325	700	17,200	7,500	19,800	500	200	0	2,400	0	0	0	250,205	6,685	8,550	200	1,525
10 Year Average 1988-97	121,868	1,672	17,008	127	2,977	7,049	6,440	1,528	14,156	5,959	21,059	888							206,371	9,579	9,283		4,761





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 11/17/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	1,800	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	15	0	0	1,300
Stump Lake	3,000	0	500	0	1,500	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000	0	0	0	200
Swan Lake	5,800	100	500	0	4,500	0	300	100	5,000	0	0	0	200	0	0	0	0	0	16,500	500	8,000	200	0
Gilbert Lake	1,500	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	1,700	50	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	3,500	0	1,125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,625	0	0	0	0
Long Lake	6,000	0	0	0	1,000	0	1,000	0	0	0	0	0	0	0	0	0	0	0	8,000	0	0	0	0
Dardenne	18,000	400	18,000	0	0	0	3,000	600	0	500	0	0	0	0	0	0	0	0	40,500	0	0	0	0
Cuivre	14,000	0	5,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,000	0	0	0	0
Batchtown Pool	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Batchtown Refuge	3,000	0	0	0	200	0	800	0	0	0	0	0	0	0	0	0	0	0	4,000	50	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	16,500	1,100	10,000	0	5,500	1,100	2,500	0	0	0	0	0	0	0	0	0	0	0	36,700	0	300	0	0
Twin Ponds	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0
Clarksville Refuge	1,500	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	8,000	800	1,500	0	1,200	0	500	0	0	3,000	0	0	0	0	0	0	0	0	15,000	1,800	250	0	0
La -Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	8,000	0	1,000	0	500	0	2,000	0	0	500	0	0	0	0	0	0	0	0	12,000	0	0	0	0
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Refuge	3,600	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	3,800	0	0	0	0
Meyer-Keokuk	1,300	0	50	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	1,550	0	0	0	0
TOTAL LOWER	95,810	2,500	38,275	0	14,600	1,100	10,300	700	5,200	4,000	0	0	200	0	0	0	0	0	172,685	2,415	8,550	200	1,500



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 11/23/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	1,010	200	0	0	30	0	400	0	0	0	0	0	0	0	0	0	0	0	1,640	0	0	0	0
Depue, Spring	480	20	0	0	0	0	50	0	0	0	10	0	0	0	0	0	0	0	560	100	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	6,370	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,070	0	0	0	0
Goose Lake	54,450	4,550	1,300	0	0	200	3,250	0	0	0	800	0	0	0	0	0	0	0	64,550	3,800	500	0	0
Senachwine Lake	9,200	1,000	200	0	650	0	300	0	0	0	200	0	0	0	0	0	0	0	11,550	900	0	0	0
Swan Lake	600	50	400	0	25	0	500	0	0	0	0	0	0	0	0	0	0	0	1,575	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Billsbach Lake	80	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	25	0	0	0
Weis Lake	100	0	0	0	1,800	0	200	0	0	0	0	0	0	0	0	0	0	0	2,100	0	0	0	0
Spartland	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25	40	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	400	0	1,000	0	0	0	0	0	0	0	0	0	0	0	1,400	0	0	0	0
Hitchcock Slough	1,700	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,800	0	0	0	0
Babbs Slough	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	5,700	500	50	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	6,350	100	0	0	0
Goose Lake	13,500	1,900	900	0	500	0	2,000	0	0	0	0	0	0	0	0	0	0	0	18,800	400	0	0	0
Upper Peoria	9,000	1,100	300	0	0	0	700	0	0	0	0	0	0	0	0	0	0	0	11,100	0	0	0	0
Lower Peoria	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
TOTAL UPPER	102,590	10,140	3,150	0	3,530	200	8,400	0	0	0	1,010	0	0	0	0	0	0	0	129,020	5,365	500	0	0
TOTAL LOWER	214,665	8,220	9,900	0	7,800	520	15,890	2,550	12,700	9,920	1,300	500	1,850	0	1,100	0	0	0	286,915	4,560	300	225	4,700
TOTAL	317,255	18,360	13,050	0	11,330	720	24,290	2,550	12,700	9,920	2,310	500	1,850	0	1,100	0	0	0	415,935	9,925	800	225	4,700
10 Year Average 1988-97	272,364	8,671	10,443	97	4,147	6,168	8,167	817	6,686	6,674	2,193	439							329,448	17,136	2,984		13,074



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY

Date: 11/23/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	6,100	250	10,000	0	0	0	0	0	0	0	16,350	0	0	0	0
Arthur Refuge	1,100	0	0	0	50	0	0	200	0	0	0	0	0	0	0	0	0	0	1,350	0	0	0	0
Nauvoo-Ft. Mad.	70	0	20	0	0	0	0	0	3,000	0	2,000	0	0	0	1,520	0	0	0	6,610	0	0	0	0
Ft.Madison-Dallas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Crystal Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oquawka Refuge	1,300	0	0	0	0	0	800	0	0	0	0	0	0	0	0	0	0	0	2,100	0	0	0	0
Oqua.-Keithsburg	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	
Keithsburg Refuge	22,950	1,080	270	0	0	0	2,700	0	0	0	0	0	0	0	0	0	0	0	27,000	1,500	0	0	0
New Boston	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Louisa Refuge	31,200	500	5,000	0	3,000	0	4,000	500	600	700	0	0	0	0	0	0	0	0	45,500	4,700	0	0	0
Louisa-Muscatine	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Andalusia Refuge	1,000	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0	0	0	1,200	0	0	0	0
TOTAL UPPER	57,670	1,580	5,290	0	3,050	0	7,600	700	9,700	1,050	12,000	0	0	0	1,520	0	0	0	100,160	6,200	100	0	0
TOTAL LOWER	95,760	1,470	35,000	0	3,000	700	9,500	0	200	4,950	0	0	110	0	0	0	0	0	150,690	4,740	10,235	360	370
TOTAL	153,430	3,050	40,290	0	6,050	700	17,100	700	9,900	6,000	12,000	0	110	0	1,520	0	0	0	250,850	10,940	10,335	360	370
10 Year Average 1988-97	121,868	1,672	17,008	127	2,977	7,049	6,440	1,528	14,156	5,959	21,059	888							206,371	9,579	9,283		4,761





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 11/23/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	540	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	540	120	0	0	50
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spring Lake	200	0	0	0	0	0	0	50	100	0	0	0	300	0	0	0	0	0	650	20	0	0	2,700
Goose Lake	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	100	0	0	0
Rice Lake	5,900	500	200	0	50	20	500	0	300	0	0	0	0	0	0	0	0	0	7,470	0	0	0	100
Big Lake	600	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	650	0	0	0	50
Banner Marsh	10,500	800	1,000	0	100	0	1,000	0	200	500	0	0	300	0	0	0	0	0	14,400	650	0	0	500
Duck Creek	47,200	2,500	2,600	0	0	100	4,800	0	500	600	0	0	1,050	0	500	0	0	0	59,850	1,200	0	0	0
Clear Lake	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	125	0	200	0
Chautauqua	78,500	2,400	2,400	0	4,700	400	5,600	1,900	4,000	1,200	0	0	200	0	600	0	0	0	101,900	2,010	150	25	100
Quiver Creek	390	0	0	0	0	0	40	0	0	20	0	0	0	0	0	0	0	0	450	0	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spoon Btms/Emiq.	900	50	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	1,000	60	0	0	0
Bath Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Moscow Lake	500	0	0	0	0	0	0	0	0	500	0	0	0	0	0	0	0	0	1,000	0	0	0	300
Jack Lake	5,800	200	0	0	0	0	0	0	4,000	3,000	0	500	0	0	0	0	0	0	13,500	0	0	0	0
Grass Lake	8,050	500	0	0	1,500	0	500	0	0	500	0	0	0	0	0	0	0	0	11,050	0	0	0	0
Anderson Lake	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	600
Snicarte Slough	2,720	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,220	0	0	0	0
Ingram Lake	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	0	0	0
Chain Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Stewart Lake	1,300	0	0	0	50	0	0	0	100	200	0	0	0	0	0	0	0	0	1,650	75	0	0	0
Crane Lake	5,050	0	1,000	0	400	0	700	600	3,500	2,100	800	0	0	0	0	0	0	0	14,150	0	0	0	300
Cuba Island	12,100	100	600	0	0	0	0	0	0	1,000	0	0	0	0	0	0	0	0	13,800	0	150	0	0
Sanganolis	3,700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,700	0	0	0	0
Treadway Lake	150	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	250	0	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	14,000	800	0	0	700	0	1,700	0	0	200	500	0	0	0	0	0	0	0	17,900	200	0	0	0
Meredosia Lake	10,000	0	1,000	0	300	0	1,000	0	0	0	0	0	0	0	0	0	0	0	12,300	0	0	0	0
Smith Lake	1,900	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0	0
Spunky Bottoms	2,500	200	600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,300	0	0	0	0
Bath-Beardstown	80	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
TOTAL LOWER	214,665	8,220	9,900	0	7,800	520	15,890	2,550	12,700	9,920	1,300	500	1,850	0	1,100	0	0	0	286,915	4,560	300	225	4,700



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY

Date: 11/23/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	2,650	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,700	0	0	0	50
Stump Lake	5,000	200	500	0	1,000	0	300	0	0	0	0	0	0	0	0	0	0	0	7,000	0	0	0	20
Swan Lake	5,300	0	0	0	600	0	0	0	200	3,400	0	0	0	0	0	0	0	0	9,500	395	9,000	360	0
Gilbert Lake	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	400	0	0	0
Grafton-Alton	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0
Marais Temps C.	2,000	0	1,900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,900	50	100	0	300
Long Lake	4,000	300	200	0	0	0	1,000	0	0	0	0	0	0	0	0	0	0	0	5,500	0	0	0	0
Dardenne	26,100	0	15,000	0	0	200	500	0	0	0	0	0	10	0	0	0	0	0	41,810	0	0	0	0
Cuivre	7,000	0	11,000	0	0	0	1,500	0	0	0	0	0	0	0	0	0	0	0	19,500	0	0	0	0
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Refuge	900	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	1,100	0	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	23,150	600	5,800	0	500	500	2,000	0	0	0	0	0	0	0	0	0	0	0	32,550	500	1,100	0	0
Twin Ponds	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	0	0	0	0
Clarksville Refuge	1,300	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,500	50	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	4,000	20	0	0	100	0	1,300	0	0	1,500	0	0	0	0	0	0	0	0	6,920	3,300	35	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	8,700	0	400	0	600	0	900	0	0	50	0	0	0	0	0	0	0	0	10,650	45	0	0	0
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	3,000	0	0	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	3,500	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Refuge	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170	0	0	0	0
Meyer-Keokuk	1,500	300	0	0	0	0	1,500	0	0	0	0	0	100	0	0	0	0	0	3,400	0	0	0	0
TOTAL LOWER	95,760	1,470	35,000	0	3,000	700	9,500	0	200	4,950	0	0	110	0	0	0	0	0	150,690	4,740	10,235	360	370





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY Date: 12/01/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	1,200	0	0	0	525	0	0	0	0	0	0	0	0	0	0	0	0	1,725	0	0	0	0
Depue, Spring	1,230	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,240	1,100	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0
Goose Lake	50,500	5,600	3,100	0	2,500	1,000	3,100	0	400	1,300	0	700	0	0	0	0	0	68,200	4,300	0	0	0
Senachwine Lake	9,300	1,000	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,500	200	0	0	0
Swan Lake	1,600	100	600	0	0	0	0	0	0	100	0	0	0	0	0	0	0	2,400	0	0	0	0
Sawmill Lake	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weis Lake	1,200	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,400	100	0	0	0
Sparland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	500	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	600	20	0	0	0
Hitchcock Slough	7,500	800	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,500	100	0	0	0
Babbs Slough	1,800	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,200	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	12,000	400	1,200	0	0	700	1,000	0	0	0	0	200	0	0	0	0	0	15,500	0	0	0	0
Goose Lake	22,900	1,500	2,000	0	1,200	0	800	0	1,000	0	0	0	0	0	0	0	0	29,400	400	0	0	0
Upper Peoria	12,300	700	1,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14,000	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	122,830	10,710	8,300	0	4,325	1,700	4,900	0	1,400	1,400	0	900	0	0	0	0	0	156,465	6,220	0	0	0
TOTAL LOWER	191,125	6,095	11,870	0	11,560	70	7,900	820	1,150	8,295	50	4,620	0	600	0	0	0	244,155	7,275	800	225	1,675
TOTAL	313,955	16,805	20,170	0	15,885	1,770	12,800	820	2,550	9,695	50	5,520	0	600	0	0	0	400,620	13,495	800	225	1,675
10 Year Average 1988-97	198,044	7,339	2,536	9	726	1,581	1,251	138	795	1,506	576	74						220,177	12,789	616		507



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 12/01/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	700	0	0	0
Powerlon Lake	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	50	0	0	0
Spring Lake	900	0	0	0	0	0	0	0	0	0	0	0	900	0	0	0	0	0	1,800	85	0	0	1,050
Goose Lake	3,600	300	400	0	400	0	0	0	0	0	0	0	0	0	0	0	0	0	4,700	200	0	0	0
Rice Lake	8,800	0	500	0	200	0	1,000	0	0	0	0	0	0	0	0	0	0	0	10,500	0	0	0	0
Big Lake	500	0	0	0	0	0	0	0	0	300	0	0	0	0	0	0	0	0	800	0	0	0	0
Banner Marsh	9,500	400	500	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	10,500	200	0	0	0
Duck Creek	58,250	3,250	1,950	0	1,300	0	1,950	0	300	1,300	0	0	1,000	0	600	0	0	0	69,900	3,200	0	0	0
Clear Lake	900	0	0	0	0	0	0	20	0	25	0	0	0	0	0	0	0	0	945	110	0	175	200
Chautauqua	49,000	1,750	2,900	0	4,300	0	1,100	800	150	700	0	0	1,400	0	0	0	0	0	62,100	2,610	0	50	0
Quiver Creek	650	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	750	10	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spoon Btms/Emiq.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0
Bath Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Moscow Lake	130	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	180	0	0	0	0
Jack Lake	5,200	150	50	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	5,600	0	0	0	0
Grass Lake	14,300	220	500	0	1,000	0	900	0	200	1,900	50	0	1,000	0	0	0	0	0	20,070	0	0	0	0
Anderson Lake	25	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0	0	325	0	0	0	100
Snicarte Slough	0	0	0	0	0	0	300	0	0	0	0	0	20	0	0	0	0	0	320	0	0	0	0
Ingram Lake	40	0	0	0	150	0	0	0	0	0	0	0	0	0	0	0	0	0	190	0	0	0	25
Chain Lake	50	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	250	0	0	0	0
Stewart Lake	35	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	55	0	0	0	0
Crane Lake	6,120	0	200	0	50	0	500	0	0	4,000	0	0	0	0	0	0	0	0	10,870	0	0	0	300
Cuba Island	9,200	25	1,000	0	200	50	250	0	500	0	0	0	0	0	0	0	0	0	11,225	40	0	0	0
Sanganois	3,100	0	0	0	1,600	0	400	0	0	0	0	0	0	0	0	0	0	0	5,100	0	0	0	0
Treadway Lake	0	0	20	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	6,700	0	650	0	250	20	600	0	0	0	0	0	0	0	0	0	0	0	8,220	20	800	0	0
Meredosia Lake	4,400	0	600	0	900	0	500	0	0	0	0	0	0	0	0	0	0	0	6,400	0	0	0	0
Smith Lake	2,500	0	1,800	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	4,500	0	0	0	0
Spunky Bottoms	3,000	0	800	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	4,000	0	0	0	0
Bath-Meredosia	1,900	0	0	0	600	0	0	0	0	0	0	0	0	0	0	0	0	0	2,500	0	0	0	0
TOTAL LOWER	191,125	6,095	11,870	0	11,560	70	7,900	820	1,150	8,295	50	0	4,620	0	600	0	0	0	244,155	7,275	800	225	1,675





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 12/01/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	3,000	500	6,100	500	0	0	150	0	0	0	10,250	0	0	0	0
Arthur Refuge	1,750	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,050	45	0	0	0
Nauvoo-Ft. Mad.	1,000	0	0	0	0	0	0	0	3,000	400	2,600	0	0	0	2,200	0	0	0	9,200	0	0	0	0
Ft.Madison-Dallas	0	0	0	0	0	0	0	0	0	0	310	0	0	0	10	0	0	0	320	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Turkey Slough	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	15	0	0	0	0
Oquawka Refuge	5,200	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,250	0	0	0	0
Oqua.-Keithsburg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Keithsburg Refuge	16,000	0	1,500	0	0	0	2,000	0	0	0	0	0	500	0	0	0	0	0	20,000	3,000	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	14,500	200	2,600	0	500	0	2,500	0	0	200	0	0	0	0	0	0	0	0	20,500	2,500	400	0	0
Louisa-Muscatine	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Andalusia Refuge	600	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700	20	0	0	0
TOTAL UPPER	39,120	250	4,510	0	500	0	4,500	0	6,000	1,115	9,010	500	500	0	2,360	0	0	0	68,365	5,565	400	0	0
TOTAL LOWER	86,740	100	38,820	0	4,550	400	3,900	600	100	6,140	0	0	2,675	0	800	0	0	0	144,825	2,380	9,800	100	1,100
TOTAL	125,860	350	43,330	0	5,050	400	8,400	600	6,100	7,255	9,010	500	3,175	0	3,160	0	0	0	213,190	7,945	10,200	100	1,100
10 Year Average 1988-97	90,511	1,469	4,822	6	413	1,652	1,607	189	5,431	2,919	12,946	241							132,001	9,959	6,379		357





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 12/01/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	1,500	0	1,000	0	50	0	0	0	0	40	0	0	0	0	0	0	0	0	2,590	130	0	0	600
Slump Lake	8,000	0	1,500	0	1,500	400	600	0	0	0	0	0	600	0	0	0	0	0	12,600	0	0	0	300
Swan Lake	9,800	100	0	0	1,000	0	0	400	100	4,200	0	0	1,500	0	800	0	0	0	17,900	20	6,300	100	0
Gilbert Lake	600	0	0	0	400	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	500	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	1,300	0	500	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0	2,000	0	0	0	0
Long Lake	3,500	0	1,000	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	4,700	50	0	0	0
Dardenne	14,900	0	21,000	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	35,950	0	0	0	200
Cuivre	10,500	0	4,500	0	0	0	500	200	0	0	0	0	300	0	0	0	0	0	16,000	0	0	0	0
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Refuge	2,100	0	200	0	400	0	100	0	0	0	0	0	0	0	0	0	0	0	2,800	300	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	16,400	0	6,600	0	600	0	2,000	0	0	500	0	0	200	0	0	0	0	0	26,300	300	3,500	0	0
Twin Ponds	500	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	600	30	0	0	0
Clarksville Refuge	1,500	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,600	50	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	4,700	0	1,100	0	0	0	0	0	0	1,200	0	0	0	0	0	0	0	0	7,000	1,000	0	0	0
La-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	7,600	0	1,200	0	500	0	500	0	0	0	0	0	0	0	0	0	0	0	9,800	0	0	0	0
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	1,900	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Gardner Refuge	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Meyer-Keokuk	1,730	0	20	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	1,775	0	0	0	0
TOTAL LOWER	86,740	100	38,820	0	4,550	400	3,900	600	100	6,140	0	0	2,675	0	800	0	0	0	144,825	2,380	9,800	100	1,100



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 12/07/98

Observer: Michella Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	2,300	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,500	0	0	0	0
Depue, Spring	1,500	100	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	1,620	20	0	0	10
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0
Goose Lake	38,800	4,700	0	0	3,000	100	1,500	0	0	0	0	0	0	0	0	0	0	0	48,100	1,400	0	0	0
Senachwine Lake	13,000	1,400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14,400	300	0	0	0
Swan Lake	1,700	150	100	0	200	0	400	0	0	0	0	0	100	0	0	0	0	0	2,650	0	0	0	0
Sawmill Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Billsbach Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
Weis Lake	1,500	300	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	2,000	30	0	0	0
Spariland	300	100	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	420	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	600	0	0	0	0	0	0	0	0	0	0	0	0	0	600	0	0	0	0
Hitchcock Slough	2,600	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,000	0	0	0	0
Babbs Slough	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	8,000	1,000	100	0	0	0	500	0	0	1,300	0	0	0	0	0	0	0	0	10,900	0	0	0	0
Goose Lake	11,730	1,250	0	0	0	0	200	50	500	3,000	0	0	0	0	0	0	0	0	16,730	240	0	0	0
Upper Peoria	19,200	1,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21,000	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	101,230	11,400	200	0	3,820	100	2,800	50	500	4,300	0	0	120	0	0	0	0	0	124,520	1,990	0	0	10
TOTAL LOWER	171,920	9,780	5,645	0	12,575	2,160	11,945	1,500	3,370	6,715	25	0	1,945	0	300	20	0	0	227,900	4,220	1,400	140	3,135
TOTAL	273,150	21,180	5,845	0	16,395	2,260	14,745	1,550	3,870	11,015	25	0	2,065	0	300	20	0	0	352,420	6,210	1,400	140	3,145
10 Year Average 1988-97	198,044	7,339	2,536	9	726	1,581	1,251	138	795	1,506	576	74							220,177	12,789	616		507





ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

Date: 12/07/98

LOWER ILLINOIS RIVER VALLEY

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	900	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	210	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	20	0	0	170	0	0	0	0
Spring Lake	600	0	0	0	0	0	0	0	400	0	0	0	600	0	0	0	0	0	1,600	80	0	0	500
Goose Lake	900	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	920	0	0	0	0
Rice Lake	5,550	500	0	0	0	0	300	0	0	1,000	0	0	0	0	0	0	0	0	7,350	0	0	0	25
Big Lake	20	0	0	0	0	0	0	0	200	400	0	0	0	0	0	0	0	0	620	0	0	0	0
Banner Marsh	1,900	0	0	0	0	0	550	0	20	45	0	0	50	0	0	0	0	0	2,565	230	0	0	60
Duck Creek	49,330	2,650	0	0	0	1,060	1,440	0	0	0	0	0	100	0	0	0	0	0	54,580	1,700	0	0	200
Clear Lake	1,100	100	0	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	1,240	110	0	0	0
Chautauqua	50,050	1,850	900	0	4,000	600	4,200	500	850	1,500	0	0	300	0	50	0	0	0	64,800	1,500	1,000	90	100
Quiver Creek	820	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	845	100	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Spoon Btms/Emiq.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bath Lake	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	165	0	0	0	0
Moscow Lake	40	0	0	0	0	0	0	0	0	300	0	0	0	0	0	0	0	0	340	30	0	0	100
Jack Lake	3,400	50	0	0	100	0	0	0	700	300	0	0	0	0	0	0	0	0	4,550	0	0	0	0
Grass Lake	10,300	500	400	0	2,000	0	600	0	0	50	0	0	20	0	0	0	0	0	13,870	30	0	0	0
Anderson Lake	250	10	0	0	0	0	0	0	0	0	0	0	210	0	0	0	0	0	470	0	0	0	1,900
Snicarte Slough	100	0	0	0	0	0	400	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0
Ingram Lake	100	0	0	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	220	0	0	0	0
Chain Lake	150	0	0	0	625	0	0	0	0	0	0	0	0	0	0	0	0	0	775	0	0	0	0
Stewart Lake	220	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	250	0	0	50	0
Crane Lake	4,100	50	0	0	0	0	100	0	1,000	2,000	0	0	0	0	100	0	0	0	7,350	0	0	0	0
Cuba Island	20,200	2,800	3,300	0	1,200	0	2,500	1,000	0	0	0	0	500	0	0	0	0	0	31,500	60	0	0	50
Sanganois	3,400	0	25	0	1,000	0	200	0	0	0	0	0	0	0	0	0	0	0	4,625	0	0	0	100
Treadway Lake	0	0	20	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	100	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	6,900	250	500	0	2,000	500	700	0	0	0	0	0	0	0	0	0	0	0	10,850	0	400	0	0
Meredosia Lake	5,800	700	0	0	1,600	0	400	0	200	1,100	25	0	0	0	0	0	0	0	9,825	70	0	0	0
Smith Lake	25	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	50	0	0	0	0
Spunky Bottoms	5,500	200	500	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	6,700	100	0	0	0
Bath-Beardstown	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
TOTAL LOWER	171,920	9,780	5,645	0	12,575	2,160	11,945	1,500	3,370	6,715	25	0	1,945	0	300	20	0	0	227,900	4,220	1,400	140	3,135



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 12/07/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	13,000	3,100	9,200	0	0	0	300	0	0	0	25,600	0	0	0	0
Arthur Refuge	2,000	0	100	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	2,400	200	0	0	0
Nauvoo-Ft. Mad.	0	0	0	0	500	0	0	100	300	0	1,000	0	0	0	7,300	0	0	0	9,200	0	20	0	0
Ft. Madison-Dallas	0	0	0	0	0	0	0	0	520	0	0	0	0	0	120	0	0	0	640	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	25	0	0	0	10
Oquawka Refuge	5,300	200	0	0	0	0	0	500	0	0	0	0	0	0	0	0	0	0	6,000	0	0	0	0
Oqua.-Keithsburg	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Keithsburg Refuge	28,520	310	620	0	0	0	1,550	0	0	0	0	0	0	0	0	0	0	0	31,000	400	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	44,700	640	0	0	1,760	0	1,320	880	400	1,500	0	0	0	0	0	0	0	0	51,200	1,600	200	0	200
Louisa-Muscatine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Andalusia Refuge	450	25	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0
TOTAL UPPER	80,970	1,175	745	0	2,580	0	2,870	1,505	14,220	4,600	10,200	0	0	0	7,720	0	0	0	126,585	2,200	220	0	210
TOTAL LOWER	229,725	4,750	17,050	0	13,500	200	14,400	3,700	1,100	5,800	420	0	480	0	100	0	0	0	291,225	5,585	19,000	0	4,725
TOTAL	310,695	5,925	17,795	0	16,080	200	17,270	5,205	15,320	10,400	10,620	0	480	0	7,820	0	0	0	417,810	7,785	19,220	0	4,935
10 Year Average 1988-97	79,763	841	3,628	0	111	420	556	0	2,107	1,103	12,458	143							113,662	12,980	4,796		306





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 12/07/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	2,000	0	500	0	0	0	100	1,500	0	0	0	0	0	0	0	0	0	0	0	4,100	0	0	3,000
Stump Lake	5,000	200	700	0	300	0	1,000	0	0	0	0	0	0	0	0	0	0	0	0	7,200	20	0	700
Swan Lake	14,400	1,600	500	0	1,300	0	4,800	0	1,000	4,500	400	0	300	0	100	0	0	0	0	28,900	440	16,000	0
Gilbert Lake	3,600	100	600	0	1,200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,500	500	0	25
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	8,100	0	900	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	9,050	0	0	0
Long Lake	14,200	100	1,000	0	100	0	600	0	0	0	0	0	0	0	0	0	0	0	0	16,000	0	0	0
Dardenne	59,400	1,100	6,000	0	2,500	0	1,800	1,200	0	0	0	0	0	0	0	0	0	0	0	72,000	10	0	1,000
Cuivre	28,000	1,200	2,000	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	0	31,700	0	0	0
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Refuge	11,000	150	1,000	0	2,000	0	500	0	100	500	0	0	0	0	0	0	0	0	0	15,250	500	0	0
Gilead	20	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	30	0	0	0
Cannon Refuge	49,100	0	1,850	0	2,850	0	2,800	500	0	0	0	0	120	0	0	0	0	0	0	57,220	1,700	3,000	0
Twin Ponds	1,100	0	0	0	50	0	300	0	0	0	0	0	0	0	0	0	0	0	0	1,450	200	0	0
Clarksville Refuge	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	300	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	7,500	0	300	0	700	0	500	0	0	800	0	0	0	0	0	0	0	0	0	9,800	1,900	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	14,600	0	1,600	0	2,500	200	1,500	500	0	0	20	0	0	0	0	0	0	0	0	20,920	0	0	0
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	2,800	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,000	0	0	0
Hannibal-Quincy	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	15	0	0
Quincy-Meyer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Refuge	1,345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,345	0	0	0
Meyer-Keokuk	5,550	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,750	0	0	0
TOTAL LOWER	229,725	4,750	17,050	0	13,500	200	14,400	3,700	1,100	5,800	420	0	480	0	100	0	0	0	0	291,225	5,585	19,000	4,725





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 12/14/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	850	10	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	885	0	0	0	0
Depue, Spring	1,325	25	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,360	100	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	0	0	0	0
Goose Lake	23,700	1,100	220	0	1,440	0	220	0	0	0	0	0	0	0	0	0	0	0	26,680	1,100	0	0	0
Senachwine Lake	11,400	480	0	0	0	0	0	0	0	120	0	0	0	0	0	0	0	0	12,000	200	0	0	0
Swan Lake	900	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	950	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sparland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0
Hitchcock Slough	2,700	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,000	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	17,000	1,000	0	0	500	0	500	0	0	0	0	0	200	0	0	0	0	0	19,200	200	0	0	0
Goose Lake	11,000	1,000	0	0	100	0	0	0	0	200	0	0	0	0	0	0	0	0	12,300	200	0	0	0
Upper Peoria	5,900	600	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	6,530	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	77,175	4,565	230	0	2,065	0	720	0	0	320	0	0	230	0	0	0	0	0	85,305	1,800	0	0	0
TOTAL LOWER	236,725	10,600	850	0	8,870	0	4,030	400	1,000	6,050	170	0	7,000	0	1,420	0	0	0	277,115	5,515	140	200	1,600
TOTAL	313,900	15,165	1,080	0	10,935	0	4,750	400	1,000	6,370	170	0	7,230	0	1,420	0	0	0	362,420	7,315	140	200	1,600
10 Year Average 1988-97	131,914	4,817	1,529	0	217	110	605	675	253	1,188	163	29							151,225	20,371	529		2,356



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 12/14/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	1,200	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,300	300	0	0	0
Powerton Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	20	0	0	0	0
Spring Lake	1,100	0	0	0	0	0	0	0	0	50	0	0	200	0	0	0	0	0	1,350	300	0	0	200
Goose Lake	3,300	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,500	0	0	0	0
Rice Lake	520	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	530	0	0	0	0
Big Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Banner Marsh	3,950	320	0	0	0	0	100	0	0	100	0	0	0	0	0	0	0	0	4,470	260	0	0	100
Duck Creek	67,200	3,000	100	0	0	0	900	0	500	2,000	100	0	1,500	0	800	0	0	0	76,100	1,200	0	0	0
Clear Lake	1,280	70	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	1,370	100	0	0	200
Chautauqua	76,300	2,400	400	0	5,800	0	1,600	400	0	800	0	0	2,800	0	600	0	0	0	91,100	2,820	50	200	0
Quiver Creek	850	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	900	25	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spoon Blms/Emiq.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0
Bath Lake	20	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	0
Moscow Lake	3,000	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	3,100	0	0	0	200
Jack Lake	15,200	800	0	0	780	0	320	0	0	1,200	0	0	500	0	0	0	0	0	18,800	50	0	0	0
Grass Lake	19,800	1,630	0	0	1,390	0	380	0	0	0	0	0	700	0	0	0	0	0	23,900	0	0	0	0
Anderson Lake	50	0	0	0	0	0	0	0	0	30	20	0	0	0	0	0	0	0	100	0	0	0	900
Snicarte Slough	20	0	0	0	0	0	180	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Ingram Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chain Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stewart Lake	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	10	0	0	0
Crane Lake	5,700	600	50	0	0	0	500	0	500	1,700	50	0	0	0	0	0	0	0	9,100	300	0	0	0
Cuba Island	24,100	500	0	0	0	0	0	0	0	50	0	0	700	0	0	0	0	0	25,350	0	0	0	0
Sanganais	1,300	100	0	0	350	0	0	0	0	0	0	0	0	0	0	0	0	0	1,750	0	0	0	0
Treadway Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	2,000	20	300	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	2,820	50	90	0	0
Meredosia Lake	8,700	800	0	0	0	0	0	0	0	0	0	0	600	0	0	0	0	0	10,100	0	0	0	0
Smith Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Spunky Bottoms	700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	700	0	0	0	0
Bath - Beardstown	250	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0	0
TOTAL LOWER	236,725	10,600	850	0	8,870	0	4,030	400	1,000	6,050	170	0	7,000	0	1,420	0	0	0	277,115	5,515	140	200	1,600





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY

Date: 12/14/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	0	1,000	4,600	0	200	0	1,000	0	0	0	6,800	0	0	0	0
Arthur Refuge	750	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	800	120	0	0	0
Nauvoo-Ft. Mad.	100	0	0	0	0	0	0	0	1,500	200	1,000	0	0	225	1,800	0	0	0	4,825	0	0	0	0
Ft. Madison-Dallas	200	0	0	0	0	0	0	0	0	0	1,600	0	0	20	400	0	0	0	2,220	0	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Oquawka Refuge	3,700	150	0	0	0	0	150	0	0	0	0	0	0	0	0	0	0	0	4,000	130	0	0	0
Oqua.-Keithsburg	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Keithsburg Refuge	37,000	200	500	0	1,500	0	1,100	0	0	0	0	0	700	0	0	0	0	0	41,000	1,000	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	19,900	500	100	0	0	0	0	0	0	800	0	0	1,000	0	300	0	0	0	22,600	3,800	300	0	0
Louisa-Muscatine	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	0
Muscatine-Moline	50	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	70	0	0	0	0
Andalusia Refuge	1,200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,200	20	0	0	0
TOTAL UPPER	63,320	850	600	0	1,550	0	1,250	0	1,500	2,000	7,220	0	1,900	245	3,500	0	0	0	83,935	5,070	300	0	0
TOTAL LOWER	98,675	3,100	30,200	0	3,250	650	4,500	500	0	2,350	350	0	1,870	0	30	0	0	0	145,475	3,660	9,000	250	350
TOTAL	161,995	3,950	30,800	0	4,800	650	5,750	500	1,500	4,350	7,570	0	3,770	245	3,530	0	0	0	229,410	8,730	9,300	250	350
10 Year Average 1988-97	79,763	841	3,628	0	111	420	556	0	2,107	1,103	12,458	143							113,662	12,980	4,796		306



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY

Date: 12/14/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	750	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	780	0	0	0	200
Stump Lake	2,350	200	700	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	3,300	0	0	250	0
Swan Lake	5,100	500	250	0	500	200	800	0	0	800	350	0	400	0	0	0	0	0	8,900	75	6,000	0	0
Gilbert Lake	1,700	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	2,200	150	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	1,700	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,900	0	0	0	0
Long Lake	3,800	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	4,000	0	0	0	0
Dardenne	29,250	800	13,500	0	450	450	900	0	0	450	0	0	0	0	0	0	0	0	45,800	0	0	0	0
Cuivre	10,000	0	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,000	0	0	0	0
Batchtown Pool	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batchtown Refuge	3,475	50	300	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	4,025	600	0	0	0
Gilead	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250	0	0	0	0
Cannon Refuge	20,500	600	4,500	0	1,000	0	600	500	0	500	0	0	1,000	0	0	0	0	0	29,200	1,000	3,000	0	0
Twin Ponds	750	0	50	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	900	35	0	0	0
Clarksville Refuge	2,900	100	100	0	0	0	300	0	0	0	0	0	0	0	0	0	0	0	3,400	200	0	0	0
Sny Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delair Refuge	5,500	50	500	0	0	0	1,100	0	0	500	0	0	300	0	0	0	0	0	7,950	1,600	0	0	100
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	5,500	0	100	0	500	0	300	0	0	100	0	0	20	0	0	0	0	0	6,520	0	0	0	50
Saverton-Hannibal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meyer-Keokuk	5,150	700	0	0	0	0	400	0	0	0	0	0	100	0	0	0	0	0	6,350	0	0	0	0
TOTAL LOWER	98,675	3,100	30,200	0	3,250	650	4,500	500	0	2,350	350	0	1,870	0	30	0	0	0	145,475	3,660	9,000	250	350



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 12/22/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	20	0	0	0
Depue, Spring	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	3,500	450	0	0	50	0	0	0	100	0	0	0	0	0	0	0	0	0	4,100	0	0	0	0
Senachwine Lake	2,600	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,900	50	0	0	0
Swan Lake	770	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	10	0	0	0
Sparland	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	1,100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,200	0	0	0	0
Goose Lake	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	0	0	0
Upper Peoria	15,800	800	0	0	0	0	0	0	0	0	200	0	0	1,000	0	0	0	0	17,800	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0
TOTAL UPPER	24,570	1,680	0	0	50	0	0	0	100	0	200	0	0	1,130	0	0	0	0	27,730	80	0	0	0
TOTAL LOWER	85,255	1,480	150	0	0	200	350	0	500	0	2,500	0	0	1,250	520	850	0	0	93,055	5,255	0	100	200
TOTAL	109,825	3,160	150	0	50	200	350	0	600	0	2,700	0	0	2,380	520	850	0	0	120,785	5,335	0	100	200





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 12/22/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	0	0	0
Powerdon Lake	4,000	0	0	0	0	0	0	0	0	0	0	0	0	500		700	0	0	5,200	0	0	0	0
Spring Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170	0	0	0
Goose Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice Lake	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0
Big Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0
Banner Marsh	630	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	650	340	0	0	0
Duck Creek	32,700	500	0	0	0	200	300	0	500	0	2,000	0	0	700	500	150	0	0	37,550	3,120	0	0	0
Clear Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0
Chautauqua	17,080	20	100	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	17,220	100	0	100	0
Quiver Creek	5,700	0	50	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	5,800	840	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spoon Blms/Emiq.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bath Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moscow Lake	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	40	0	0	0
Jack Lake	3,600	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,000	0	0	0	0
Grass Lake	440	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	440	0	0	0	0
Anderson Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	50	25	0	0	200
Snicarte Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ingram Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chain Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stewart Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crane Lake	5,200	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,500	0	0	0	0
Cuba Island	11,900	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,000	330	0	0	0
Sanganois	1,500	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,600	0	0	0	0
Treadway Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0
Meredosia Lake	560	40	0	0	0	0	0	0	0	0	500	0	0	0	0	0	0	0	1,100	100	0	0	0
Smith Lake	1,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,300	0	0	0	0
Little Creek	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
TOTAL LOWER	85,255	1,480	150	0	0	200	350	0	500	0	2,500	0	0	1,250	520	850	0	0	93,055	5,255	0	100	200



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 12/22/88

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	3,100	0	0	0	0	0	0	0	0	0	6,000	0	0	0	650	0	0	9,750	500	0	0	
Arthur Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Nauvoo-Ft. Mad.	0	0	0	0	0	0	0	0	7,000	4,000	26,000	0	0	3,000	3,400	0	0	43,400	0	0	0	
Ft.Madison-Dallas	500	0	0	0	0	0	0	0	0	0	3,000	0	0	1,200	0	0	0	4,700	0	0	0	
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0	200	300	0	0	
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Burling.-Oquawka	11,000	0	0	0	0	0	0	0	0	0	1,500	0	0	500	0	0	0	13,000	300	0	0	
Crystal Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oquawka Refuge	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	
Oqua.-Keithsburg	4,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,500	0	0	0	
Keithsburg Refuge	21,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21,000	800	0	0	
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Louisa Refuge	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000	1,700	0	0	
Louisa-Muscatine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Muscatine-Moline	330	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	350	10	0	0	
Andalusia Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL UPPER	42,455	0	0	0	0	0	0	0	7,000	4,000	36,500	0	0	4,920	4,050	0	0	98,925	3,610	0	0	
TOTAL LOWER	95,895	1,050	10,450	0	300	0	1,600	0	0	800	400	0	0	50	0	0	0	110,545	2,480	4,000	550	
TOTAL	138,350	1,050	10,450	0	300	0	1,600	0	7,000	4,800	36,900	0	0	4,970	4,050	0	0	209,470	6,090	4,000	550	





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY

Date: 12/22/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	0	0	0	0
Stump Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Swan Lake	2,700	0	0	0	300	0	0	0	0	800	0	0	0	0	0	0	0	0	3,800	250	0	0	150
Gilbert Lake	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	600	0	0	0
Grafton-Alton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marais Temps C.	3,900	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,100	0	0	0	0
Long Lake	8,900	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,000	0	0	0	0
Dardenne	14,000	500	4,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,800	70	0	0	400
Cuivre	9,000	0	1,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,500	0	0	0	0
Batchtown Pool	1,400	50	50	0	0	0	0	0	0	0	400	0	0	50	0	0	0	0	1,950	20	0	0	0
Batchtown Refuge	14,000	200	1,000	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	15,700	300	0	0	0
Gilead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cannon Refuge	20,600	100	2,500	0	0	0	500	0	0	0	0	0	0	0	0	0	0	0	23,700	100	4,000	0	0
Twin Ponds	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	260	0	0	0
Clarksville Refuge	1,700	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,900	0	0	0	0
Sny Slough	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400	500	0	0	0
Delair Refuge	4,200	0	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,500	300	0	0	0
La.-Saverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shanks Area	12,900	100	400	0	0	0	600	0	0	0	0	0	0	0	0	0	0	0	14,000	0	0	0	0
Saverton-Hannibal	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Gardner Club	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hannibal-Quincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quincy-Meyer	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	30	0	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meyer-Keokuk	1,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,300	50	0	0	0
TOTAL LOWER	95,895	1,050	10,450	0	300	0	1,600	0	0	800	400	0	0	50	0	0	0	0	110,545	2,480	4,000	0	550



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER ILLINOIS RIVER VALLEY

Date: 01/07/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Turner Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depue, Spring	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coleman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bureau Ponds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Senachwine Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Swan Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawmill Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	0	0	0
Billsbach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weis Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sparland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wightman Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sawyer Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hitchcock Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Babbs Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meadow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Douglas Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Upper Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lower Peoria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	0	0	90	0	0	0	0
TOTAL UPPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	0	0	90	120	0	0	0
TOTAL LOWER	2,275	0	0	0	0	0	0	0	0	0	0	0	0	2,800	0	4,550	0	0	9,625	9,485	0	0	0
TOTAL	2,275	0	0	0	0	0	0	0	0	0	0	0	0	2,800	0	4,640	0	0	9,715	9,605	0	0	0





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER ILLINOIS RIVER VALLEY

Date: 01/07/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Pekin Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Powerton Lake	50	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	4,000	0	0	5,050	440	0	0	0
Spring Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Goose Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rice Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Banner Marsh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Duck Creek	1,800	0	0	0	0	0	0	0	0	0	0	0	0	1,800	0	550	0	0	4,150	8,100	0	0	0
Clear Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chautauqua	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quiver Creek	425	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	425	670	0	0	0
Quiver Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Spoon Btms/Emiq.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0
Bath Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moscow Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jack Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grass Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anderson Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snicarte Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ingram Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chain Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stewart Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crane Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cuba Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sanganois	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treadway Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Muscooten Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Big Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meredosia Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Smith Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Matanza Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	0	0	0
Meredosia - Godar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0
TOTAL LOWER	2,275	0	0	0	0	0	0	0	0	0	0	0	0	2,800	0	4,550	0	0	9,625	9,485	0	0	0





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

UPPER MISSISSIPPI RIVER VALLEY Date: 01/07/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Keokuk-Nauvoo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	90	0	0	0
Arthur Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nauvoo-Ft. Mad.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250	0	0	250	0	0	0	0
Ft. Madison-Dallas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
Dallas-Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	250	0	700	0	0	950	85	0	0	0
Turkey Slough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burling.-Oquawka	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0
Crystal Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oquawka Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oqua.-Keithsburg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	80	0	0	0	0
Keithsburg Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Boston	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Louisa-Muscatine	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	50	0	0	70	200	0	0	0
Muscatine-Moline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	20	0	0	0
Andalusia Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL UPPER	0	0	0	0	0	0	0	0	0	0	0	0	0	270	0	1,190	0	0	1,460	465	0	0	0
TOTAL LOWER	400	0	0	0	0	0	0	0	0	0	0	0	0	450	0	100	0	0	950	0	540	0	0
TOTAL	400	0	0	0	0	0	0	0	0	0	0	0	0	720	0	1,290	0	0	2,410	465	540	0	0



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

LOWER MISSISSIPPI RIVER VALLEY Date: 01/07/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Godar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stump Lake	FOG -- NO CENSUS																						
Swan Lake																							
Gilbert Lake																							
Grafton-Alton																							
Marais Temps C.																							
Long Lake																							
Dardenne																							
Cuivre																							
Batchtown Pool																							
Batchtown Refuge																							
Gilead																							
Cannon Refuge																							
Twin Ponds																							
Clarksville Refuge																							
Sny Slough																							
Delair Refuge																							
La-Saverton																							
Shanks Area																							
Saverton-Hannibal																							
Gardner Club																							
Hannibal-Quincy		▼																					
Quincy-Meyer	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	30	0	20	0	0
Gardner Refuge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meyer-Keokuk	400	0	0	0	0	0	0	0	0	0	0	0	0	420	0	100	0	0	920	0	520	0	0
TOTAL LOWER	400	0	0	0	0	0	0	0	0	0	0	0	0	450	0	100	0	0	950	0	540	0	0





1998 FALL WATERFOWL CENSUSES OF CENTRAL-SOUTHERN  
ILLINOIS POWER PLANT COOLING LAKES AND RESERVOIRS,  
AND SOUTHERN SEGMENTS OF THE MISSISSIPPI RIVER BY DATE  
AND LOCATION

(See Appendix A for common name abbreviations)



ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 10/14/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	1,410	0	0	0	100	500	0	0	0	0	0	0	0	0	0	0	0	0	2,010	150	0	0	1,110
Newton Cooling Lake	1,100	0	0	0	110	0	0	100	0	20	0	0	5	0	0	0	0	0	1,335	10	0	0	2,400
Baldwin Cooling Lake	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	180	0	0	300
Sangchris Cooling Lake	450	0	50	0	0	50	25	0	0	0	0	0	0	0	0	0	0	0	575	220	0	0	420
COOLING LK. SUBTOTAL	2,960	0	80	0	210	550	25	100	0	20	0	0	5	0	0	0	0	0	3,950	560	0	0	4,230
10 Year Average 1988-97	3,679	6	333	106	239	650	214	35	25	69	0	0							4,723	1,341	138		4,723
Shelbyville Reservoir	310	5	0	0	60	10	0	0	0	0	0	0	0	0	0	0	0	0	385	35	0	0	460
Carlyle Reservoir	2,330	0	900	1,525	1,230	50	0	25	0	0	0	0	0	0	0	0	0	0	6,060	5	0	0	2,670
Rend Lake Reservoir	200	0	0	300	0	0	0	25	0	0	0	0	0	0	0	0	0	0	525	700	0	0	240
RESERVOIR SUBTOTAL	2,840	5	900	1,825	1,290	60	0	50	0	0	0	0	0	0	0	0	0	0	6,970	740	0	0	3,370
10 Year Average 1988-97	4,606	6	701	123	845	1,219	35	64	0	0	0	0							7,599	1,816	138		7,249
Bellrose Preserve Area	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0
Cairo-Cape Girardeau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cape Girardeau-Grand Tower	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Grand Tower-Chester	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chester-St.Genevieve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St.Genevieve-Crystal City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Crystal City-Kimmswick	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kimmswick-St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Horseshoe Lk. (St.Louis)	300	0	75	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	400	25	0	0	560
S. MISS. RIVER SUBTOTAL	315	0	85	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	425	25	0	0	585
TOTAL	6,115	5	1,065	1,825	1,500	635	25	150	0	20	0	0	5	0	0	0	0	0	11,345	1,325	0	0	8,185



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 10/27/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	1,530	0	1,050	0	0	250	0	0	0	0	0	0	0	0	0	0	0	0	2,830	0	0	0	2,040
Newton Cooling Lake	2,000	100	25	0	400	0	1,300	0	150	300	0	0	50	0	0	0	0	0	4,325	330	0	0	600
Baldwin Cooling Lake	40	0	0	0	0	0	0	0	0	70	0	0	0	0	0	0	0	0	110	260	100	0	100
Sangchris Cooling Lake	30	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	50	120	0	0	0
COOLING LK. SUBTOTAL	3,600	100	1,075	0	420	250	1,300	0	150	370	0	0	50	0	0	0	0	0	7,315	710	100	0	2,740
10 Year Average 1988-97	11,360	255	760	35	1,230	801	448	41	716	925	20	0							16,610	1,938	539		4,020
Shelbyville Reservoir	300	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	350	200	0	0	0
Carlyle Reservoir	5,550	25	1,840	0	2,300	500	350	0	0	0	0	0	0	0	0	0	0	0	10,565	0	0	0	500
Rend Lake Reservoir	400	0	0	0	500	300	0	0	0	0	0	0	0	0	0	0	0	0	1,200	1,700	250	0	0
RESERVOIR SUBTOTAL	6,250	25	1,840	0	2,850	800	350	0	0	0	0	0	0	0	0	0	0	0	12,115	1,900	250	0	500
10 Year Average 1988-97	32,194	551	8,940	504	5,475	4,770	2,275	659	2,906	1,919	236	0							60,468	3,700	606		7,594
Bellrose Preserve Area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cairo-Cape Girardeau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cape Girardeau-Grand Tower	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Tower-Chester	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chester-St.Genevieve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St.Genevieve-Crystal City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0
Crystal City-Kimmswick	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kimmswick-St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Horseshoe Lk. (St.Louis)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300
S. MISS. RIVER SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	300
TOTAL	9,850	125	2,915	0	3,270	1,050	1,650	0	150	370	0	0	50	0	0	0	0	0	19,430	2,635	350	0	3,540





LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	8,600	300	1,500	0	350	500	600	200	50	0	0	0	80	0	0	0	0	0	12,200	10	0	0	2,700
Newton Cooling Lake	10,125	1,000	400	0	700	0	0	0	2,100	540	0	0	1,300	0	0	0	0	0	16,165	300	100	0	2,100
Baldwin Cooling Lake	950	0	110	0	0	0	0	0	900	70	0	0	200	0	0	0	0	0	2,230	420	1,700	0	1,300
Sangchris Cooling Lake	4,000	500	400	0	100	0	900	0	50	500	0	0	0	0	0	0	0	0	6,450	500	75	0	800
COOLING LK. SUBTOTAL	23,675	1,800	2,410	0	1,150	500	1,500	200	3,100	1,110	0	0	1,580	0	0	0	0	0	37,045	1,230	1,875	0	6,900
10 Year Average 1988-97	15,729	982	1,140	5	846	1,515	1,100	148	642	729	0	0							22,966	2,350	708		2,966
Shelbyville Reservoir	1,460	5	110	0	120	0	0	0	450	160	0	0	0	0	100	0	0	0	2,405	35	0	0	1,100
Carlyle Reservoir	35,700	5,800	7,600	200	10,000	2,600	6,000	800	1,500	800	500	0	1,050	0	300	0	0	0	72,850	25	600	0	3,000
Rend Lake Reservoir	20,200	1,100	1,500	0	13,600	0	2,000	0	3,550	3,000	0	0	400	0	0	0	0	0	45,350	3,000	2,500	0	2,600
RESERVOIR SUBTOTAL	57,360	6,905	9,210	200	23,720	2,600	8,000	800	5,500	3,960	500	0	1,450	0	400	0	0	0	120,605	3,060	3,100	0	6,700
10 Year Average 1988-97	47,985	1,137	3,708	0	5,576	3,220	3,500	570	150	1,304	300	10							67,619	4,363	1,000		1,480
Bellrose Preserve Area	3,000	200	300	0	1,000	0	0	0	0	500	0	0	0	0	0	0	0	0	5,000	0	0	0	1,000
Cairo-Cape Girardeau	580	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	580	0	0	0	50
Cape Girardeau-Grand Tower	90	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	0	0	0	0
Grand Tower-Chester	100	0	5	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	115	0	0	0	0
Chester-St.Genevieve	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0
St.Genevieve-Crystal City	210	0	0	0	0	0	0	0	0	10	0	0	5	0	0	0	0	0	225	0	0	0	0
Crystal City-Kimmswick	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210	0	0	0	0
Kimmswick-St. Louis	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0
Horseshoe Lk. (St.Louis)	400	0	0	0	0	0	0	0	200	0	25	0	0	0	0	0	0	0	625	0	0	0	300
S. MISS. RIVER SUBTOTAL	4,645	200	355	0	1,000	0	0	0	200	510	25	0	15	0	0	0	0	0	6,950	0	0	0	1,350
TOTAL	85,680	8,905	11,975	200	25,870	3,100	9,500	1,000	8,800	5,580	525	0	3,045	0	400	0	0	0	164,600	4,290	4,975	0	14,950



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

## COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 11/24/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT	
Clinton Cooling Lake	5,300	550	70	0	0	50	0	20	0	40	0	0	0	0	0	0	0	0	6,030	20	0	0	90	
Newton Cooling Lake	6,800	1,000	1,500	0	0	500	0	1,000	0	2,000	0	0	100	0	0	0	0	0	12,900	290	100	0	300	
Baldwin Cooling Lake	30	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	40	180	4,000	0	50	
Sangchris Cooling Lake	3,100	0	900	0	0	0	100	0	600	400	0	0	0	0	0	0	0	0	5,100	125	0	0	0	
COOLING LK. SUBTOTAL	15,230	1,550	2,470	0	0	550	100	1,020	600	2,450	0	0	100	0	0	0	0	0	24,070	615	4,100	0	440	
10 Year Average 1988-97	19,025	1,681	200	0	255	163	925	50	800	1,369	175	0							25,050	4,383	1,313		1,088	
Shelbyville Reservoir	550	0	0	0	200	0	0	0	0	0	0	0	15	0	0	0	0	0	765	205	0	0	25	
Carlyle Reservoir	30,550	800	4,000	50	8,000	0	700	1,000	600	200	0	0	20	0	0	0	0	0	45,920	200	4,100	0	3,500	
Rend Lake Reservoir	13,500	500	3,000	0	9,500	1,000	0	500	0	0	0	0	0	0	0	0	0	0	28,000	1,500	7,000	0	200	
RESERVOIR SUBTOTAL	44,600	1,300	7,000	50	17,700	1,000	700	1,500	600	200	0	0	35	0	0	0	0	0	74,685	1,905	11,100	0	3,725	
10 Year Average 1988-97	39,050	3,025	3,250	0	4,713	1,250	2,350	1,100	588	850	238	175							56,813	9,610	2,600		1,013	
Bellrose Preserve Area	4,000	100	2,500	0	300	400	0	300	0	200	0	0	0	0	0	0	0	0	7,800	0	0	0	0	
Cairo-Cape Girardeau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Cape Girardeau-Grand Tower	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Tower-Chester	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	
Chester-St. Genevieve	3,000	0	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,500	0	0	0	0	
St. Genevieve-Crystal City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Crystal City-Kimmswick	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Kimmswick-St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Horseshoe Lk. (St. Louis)	1,800	0	0	0	0	0	0	0	300	2,000	0	0	0	0	0	0	0	0	4,100	0	0	0	0	0
S. MISS. RIVER SUBTOTAL	8,805	100	3,000	0	300	400	0	300	300	2,200	0	0	0	0	0	0	0	0	15,405	0	0	0	0	0
TOTAL	68,635	2,950	12,470	50	18,000	1,950	800	2,820	1,500	4,850	0	0	135	0	0	0	0	0	114,160	2,520	15,200	0	4,165	





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 12/08/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	7,400	1,400	100	0	50	800	100	200	100	0	0	0	0	0	0	0	0	0	10,150	300	0	0	350
Newton Cooling Lake	14,900	2,700	0	0	20	100	800	500	700	1,000	0	0	800	0	200	0	0	0	21,720	550	30	0	200
Baldwin Cooling Lake	400	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	410	420	3,000	0	0
Sangchris Cooling Lake	6,350	100	650	0	500	0	800	0	0	0	0	0	200	0	0	0	0	0	8,600	300	0	0	0
COOLING LK. SUBTOTAL	29,050	4,200	750	0	570	900	1,700	700	800	1,000	0	0	1,000	0	210	0	0	0	40,880	1,570	3,030	0	550
10 Year Average 1988-97	13,005	358	25	0	83	33	27	0	121	223	27	0							14,435	6,254	740		62
Shelbyville Reservoir	1,640	20	0	0	100	0	0	0	200	0	0	0	0	0	150	0	0	0	2,110	25	0	0	0
Carlyle Reservoir	43,800	2,800	1,800	0	5,200	1,800	400	0	900	0	100	0	0	0	0	0	0	0	56,800	30	0	0	1,400
Rend Lake Reservoir	7,500	1,500	20	0	3,100	0	0	0	0	300	0	0	0	0	0	0	0	0	12,420	1,550	5,500	0	300
RESERVOIR SUBTOTAL	52,940	4,320	1,820	0	8,400	1,800	400	0	1,100	300	100	0	0	0	150	0	0	0	71,330	1,605	5,500	0	1,700
10 Year Average 1988-97	27,836	719	688	0	525	180	197	83	306	525	150	7							33,123	26,233	800		550
Bellrose Preserve Area	11,250	100	600	0	1,200	450	300	0	0	900	200	0	200	0	0	0	0	0	15,200	0	0	0	0
Cairo-Cape Girardeau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cape Girardeau-Grand Tower	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	
Grand Tower-Chester	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Chester-St. Genevieve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
St. Genevieve-Crystal City	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	
Crystal City-Kimmiswick	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Kimmiswick-St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Horseshoe Lk. (St. Louis)	1,100	50	0	0	0	0	0	0	0	600	0	0	0	0	0	0	0	0	1,750	0	0	0	0
S. MISS. RIVER SUBTOTAL	12,395	150	600	0	1,200	450	300	0	0	1,500	200	0	200	0	0	0	0	0	16,995	0	0	0	0
TOTAL	94,385	8,670	3,170	0	10,170	3,150	2,400	700	1,900	2,800	300	0	1,200	0	360	0	0	0	129,205	3,175	8,530	0	2,250



## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 12/23/98

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT.
Clinton Cooling Lake	4,720	500	0	0	0	0	0	0	0	0	250	0	10	30	0	20	0	0	5,530	400	0	0	0
Newton Cooling Lake	11,740	1,200	0	0	400	0	0	0	300	400	20	0	0	0	120	0	0	0	14,180	740	0	0	500
Baldwin Cooling Lake	1,575	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,600	460	2,500	0	340
Sangchris Cooling Lake	3,060	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,260	430	0	0	0
COOLING LK. SUBTOTAL	21,095	1,925	0	0	400	0	0	0	300	400	270	0	10	30	120	20	0	0	24,570	2,030	2,500	0	840
Shelbyville Reservoir	4,960	235	0	0	0	0	150	0	0	0	40	0	0	70	0	0	0	0	5,455	400	0	0	300
Carlyle Reservoir	39,800	1,700	3,000	0	100	1,500	2,000	0	0	200	400	0	0	0	0	0	0	0	48,700	1,625	20	0	3,500
Rend Lake Reservoir	3,600	400	0	0	100	0	0	0	0	0	0	0	20	0	0	0	0	0	4,120	1,700	0	0	0
RESERVOIR SUBTOTAL	48,360	2,335	3,000	0	200	1,500	2,150	0	0	200	440	0	20	70	0	0	0	0	58,275	3,725	20	0	3,800
Bellrose Preserve Area	8,100	520	500	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	9,145	40	0	0	300
Cairo-Cape Girardeau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
Cape Girardeau-Grand Tower	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	120	0	0	0
Grand Tower-Chester	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0
Chester-St. Genevieve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Genevieve-Crystal City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal City-Kimmswick	175	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	185	25	0	0	0
Kimmswick-St. Louis	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0
Horseshoe Lk. (St. Louis)	4,000	0	0	0	0	0	0	0	0	200	400	0	0	0	0	200	0	0	4,800	70	0	0	0
S. MISS. RIVER SUBTOTAL	12,385	530	500	0	0	0	0	0	0	200	400	0	25	0	0	200	0	0	14,240	260	0	0	300
TOTAL	81,840	4,790	3,500	0	600	1,500	2,150	0	300	800	1,110	0	55	100	120	220	0	0	97,085	6,015	2,520	0	4,940





## ILLINOIS NATURAL HISTORY SURVEY WATERFOWL AERIAL INVENTORY DATA

COOLING LAKES, RESERVOIRS, SOUTHERN MISSISSIPPI RIVER VALLEY

Date: 01/12/99

Observer: Michelle Horath

LOCATION	MALLARD	BLK	PNT	BWT	GWT	WIG	GAD	SH	SCAUP	RN	CNVB	RH	RDY	GLD	BH	CM	RBM	HM	TOTAL DUCKS	CG	SG	PEL	COOT
Clinton Cooling Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	0
Newton Cooling Lake	900	0	0	0	0	0	0	0	0	0	0	0	0	400	300	100	0	150	1,850	1,745	0	0	0
Baldwin Cooling Lake	NO CENSUS -- FOG																						
Sangchris Cooling Lake	NO CENSUS -- FOG																						
COOLING LK. SUBTOTAL	900	0	0	0	0	0	0	0	0	0	0	0	0	400	300	100	0	150	1,850	2,045	0	0	0
Shelbyville Reservoir	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	210	0	0	0
Carlyle Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	0	0	0	0
Rend Lake Reservoir	NO CENSUS -- FOG																						
RESERVOIR SUBTOTAL	100	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	115	210	0	0	0
Bellrose Preserve Area	NO CENSUS -- FOG																						
Cairo-Cape Girardeau																							
Cape Girardeau-Grand Tower																							
Grand Tower-Chester																							
Chester-St. Genevieve																							
St. Genevieve-Crystal City																							
Crystal City-Kimmswick																							
Kimmswick-St. Louis																							
Horseshoe Lk. (St. Louis)	▼																						
S. MISS. RIVER SUBTOTAL																							
TOTAL	1,000	0	0	0	0	0	0	0	0	0	0	0	0	415	300	100	0	150	1,965	2,255	0	0	0



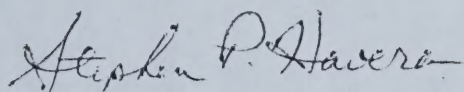


Appendix A. Key to common name abbreviations.

Common name		Abbreviation
<b>Dabbling ducks</b>		
Mallard	=	MALLARD
American black duck	=	BLK
Northern pintail	=	PNT
Blue-winged teal	=	BWT
Green-winged teal	=	GWT
American wigeon	=	WIG
Gadwall	=	GAD
Northern shoveler	=	SH
<b>Diving ducks</b>		
Lesser and greater scaup	=	SCAUP
Ring-necked duck	=	RN
Canvasback	=	CNVB
Redhead	=	RH
Ruddy duck	=	RDY
Common goldeneye	=	GLD
Bufflehead	=	BH
<b>Mergansers</b>		
Common merganser	=	CM
Red-breasted merganser	=	RBM
Hooded merganser	=	HM
<b>Geese</b>		
Canada goose	=	CG
Lesser snow goose	=	SG
American coot	=	COOT
White pelican	=	PEL



SUBMITTED BY:

A handwritten signature in cursive script, reading "Stephen P. Havera".

Stephen P. Havera  
Professional Scientist  
Illinois Natural History Survey

DATE: 23 August 1999



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SUBMITTED BY:

*Stephen P. Haver*

Stephen P. Haver  
Professional Scientist  
Illinois Natural History Survey

DATE: 23 August 1999